

4/17/95

Steve:

This is our first pass at answering the questions from our meeting. Consider this as a draft and give me an indication if this is the level of detail you desire.

1. Regarding the additional facilities needed at Edwards.

As we have discussed, I know they were planning a two story addition to a building. I heard that the two story addition cost \$16M. I also heard that the design was \$16M. I don't know which is correct. In any event, I later picked up a rumor that they were changing plans from a two story addition to a five story addition in order to house REDCAP and AFEWES. From what I can tell, they are going ahead with this plan as though the Air Force recommendation to the BRAC is final.

2. I have enclosed a Return on Investment analysis (ROI) (Attachment 1, 2). We had to derive certain numbers to "back into" the Air Force assertion.

3. Regarding the property clauses in the contract, we are still researching the subject but it appears that the normal facilities property clause FAR2.245-7, 8, 9 10 and/or 11 are not on the contract. In addition, the Operations and Maintenance (O&M) contract is a Firm Fixed Price contract with no requirements to deliver

property. At one time, property purchased on a Firm Fixed Price contract that was not on the list of deliverables became the property of the contractor (Attachment 3). This may not be true any longer. I have enclosed a copy of the O&M contract and the latest Upgrade contract (Attachment 4).

4. The current O&M contract expires 30 September 1995. The Air Force has started the process to extend the contract for an additional 18 months. Basically the O&M contract consists of approximately 70 contract line items (CLINS) that allow the Air Force to buy time on various simulators or other effort. For example, the Air Force may buy four weeks of test planning, one week of testing on each of four simulators and a final report. See Attachment 3.

5. Competing Option E. As I said, the Air Force is considering an open competition for simulators of Advanced Radars for REDCAP. We wrote a letter to the Eglin contracts department (Attachment 5) last December (attached) describing our concerns and problems they could encounter. We have yet to receive a response.

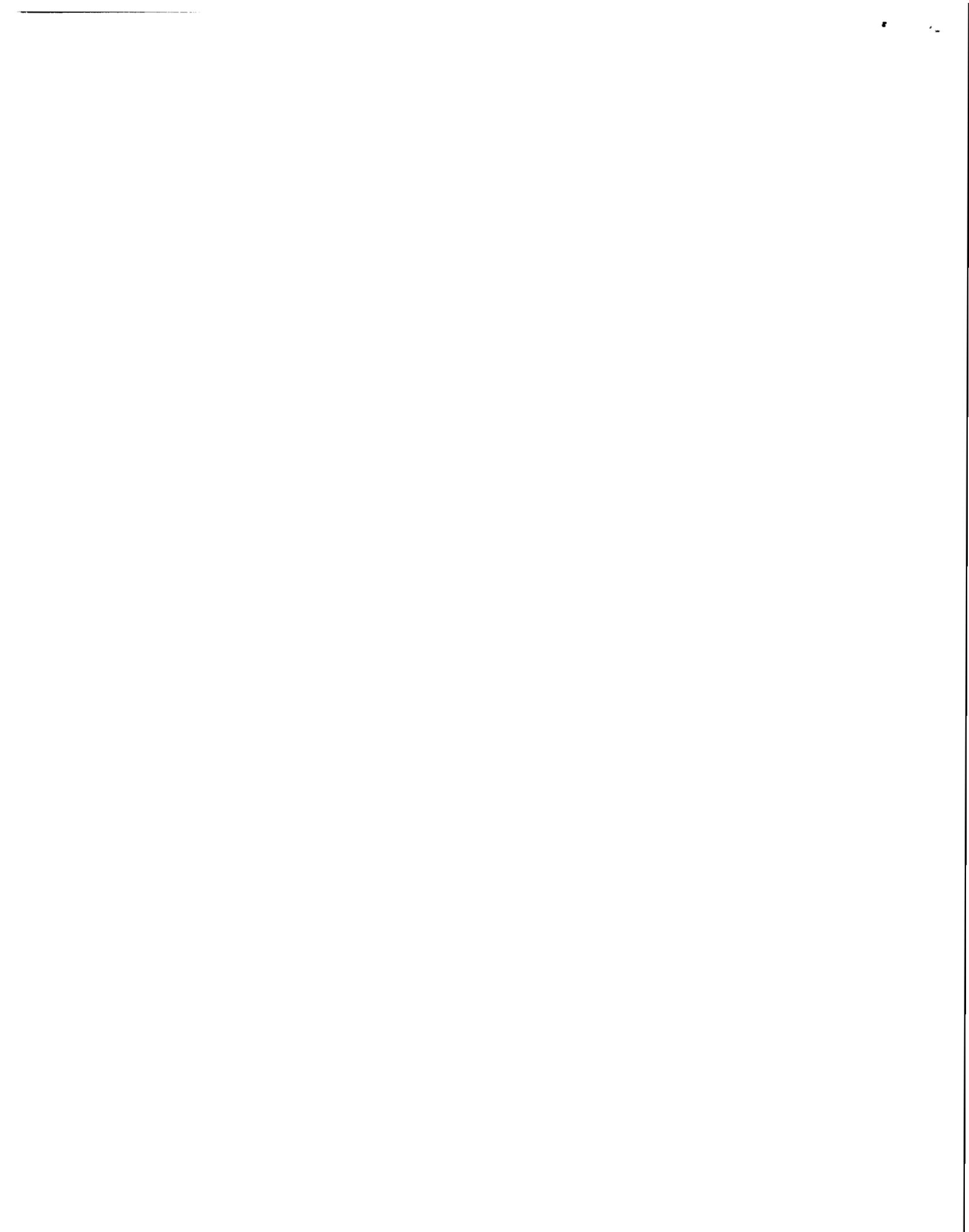
6. Regarding Private Sector capability, Attachment 6 is text from a BRAC document (I don't have the reference at hand). It focuses on depot maintenance but could logically be extended to the maintenance and operations we perform. In addition some of the "measures of merit" called out identifying "potential for contracting out". REDCAP is already "contracted out". At any rate, if moved, the

Air Force will undoubtedly add civilian jobs to support some or all of the facility. For the part they don't fill with civilian jobs, they would have to fill by contractors with salaries higher than those of our employees because the labor scale in California is much higher than the Buffalo area.

Attachment 7 consists of two pages from the Draft Procurement Reform Legislation. The second page directs procurement of services from sources in the private sector.

The concept of taking equipment that is operated by Calspan out of Calspan's building and moving it to an Air Force facility then trying to train Air Force, civilian or contractor personnel to operate it is contrary to the spirit of re-inventing government which both the administration and congress says they are intent on doing.

7. Linking of REDCAP. This wasn't an action item but there were a lot of discussions about whether linking REDCAP is possible. It is possible without a doubt. We have conducted two demonstrations using low speed modems (9600 band). Both were very successful. We are starting on a new link to ACETEF, the navy facility at Pax River. It will use the industry standard T1 lines which transmit at 1.5 million bits per second. It is funded through OSD.



There is no question regarding the ability to link REDCAP. ARPA has spent the last 3 or more years on a major linking effort called War Breaker. It consists of over 12 sites all around the country, from San Diego to Arlington, Seattle to Orlando. They used this effort to perfect the methods for linking including the types of lines (T1), the protocols (Distributed Interactive Simulation Protocol Data Units (DIS PDU), and security (KG194 encryption).

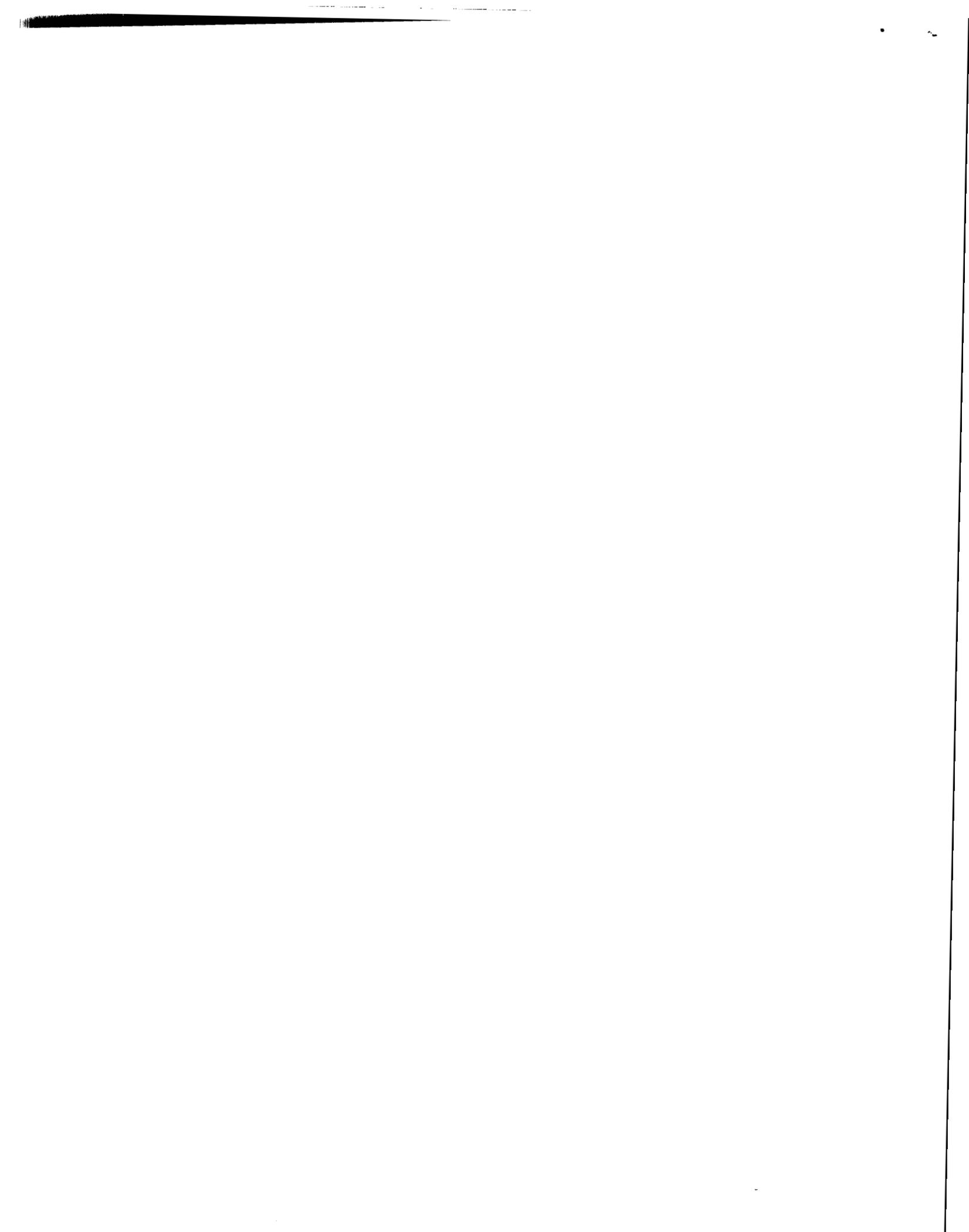
At REDCAP, we have a DIS complaint link capability including KG194 encryption. As I mentioned above, we are starting a link to ACETEF. We are also planning other linking efforts such as JETTA, JADS, and ADS and a B2 simulator link to REDCAP. Points of contact are:

Joint Environment for Training Testing and Analysis (JETTA)

Elaine Allen
Department of the Navy
NRAD-NOSC
San Diego, CA
(619) 553-6398

Joint Advanced Distributed Simulation (JADS)

Ken Haines (drop by and see him, he is in your building)
1700 North Moore Street
Suite 1910



Arlington VA 22209

(703) 528-0883

Advanced Distributed Simulation (ADS)

Capt. Ron Wiegand

(505) 846-6265

B2 Simulator to REDCAP link

John Schatz

1710 Goodridge Drive

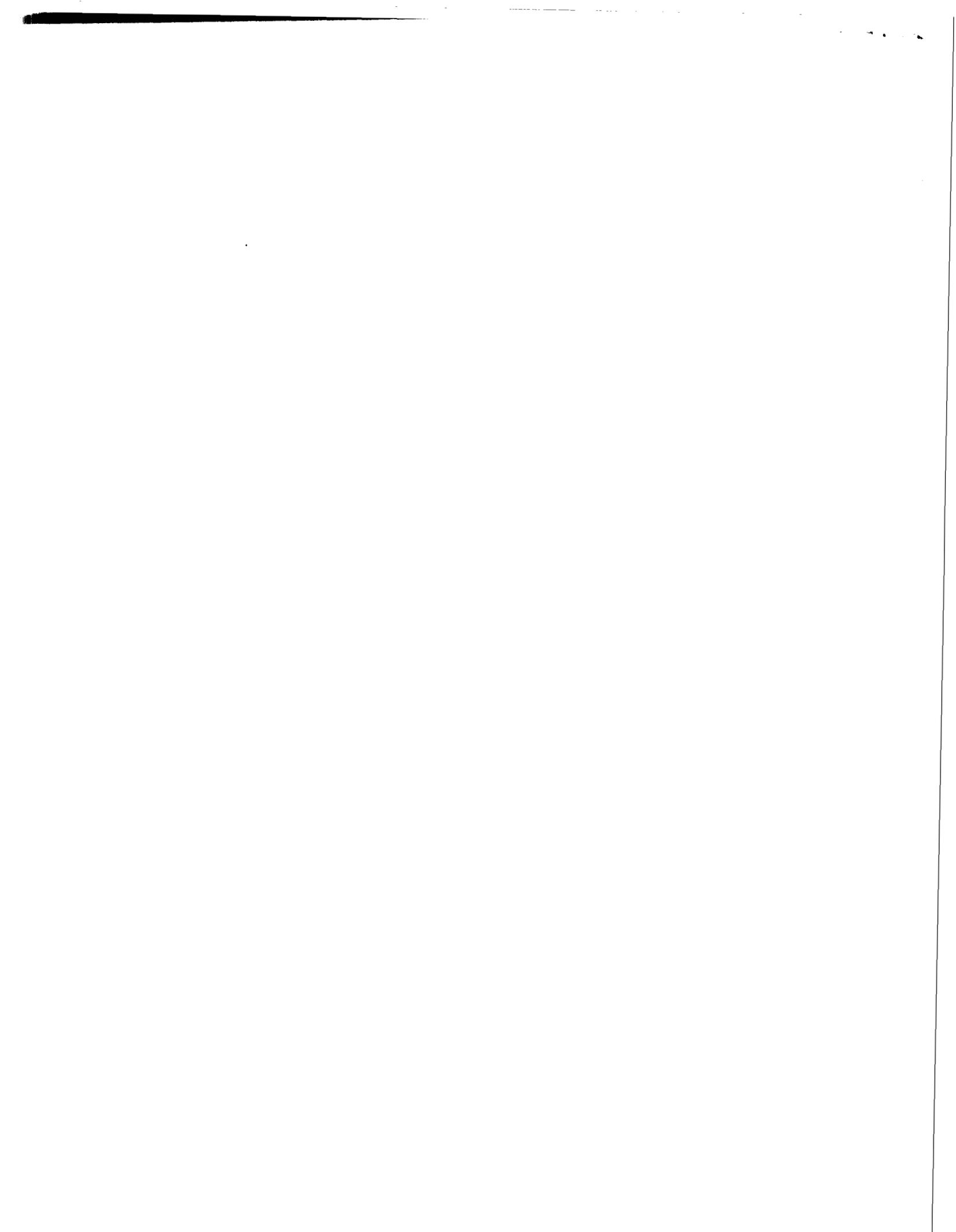
McLean, VA 22102

(703) 821-4326

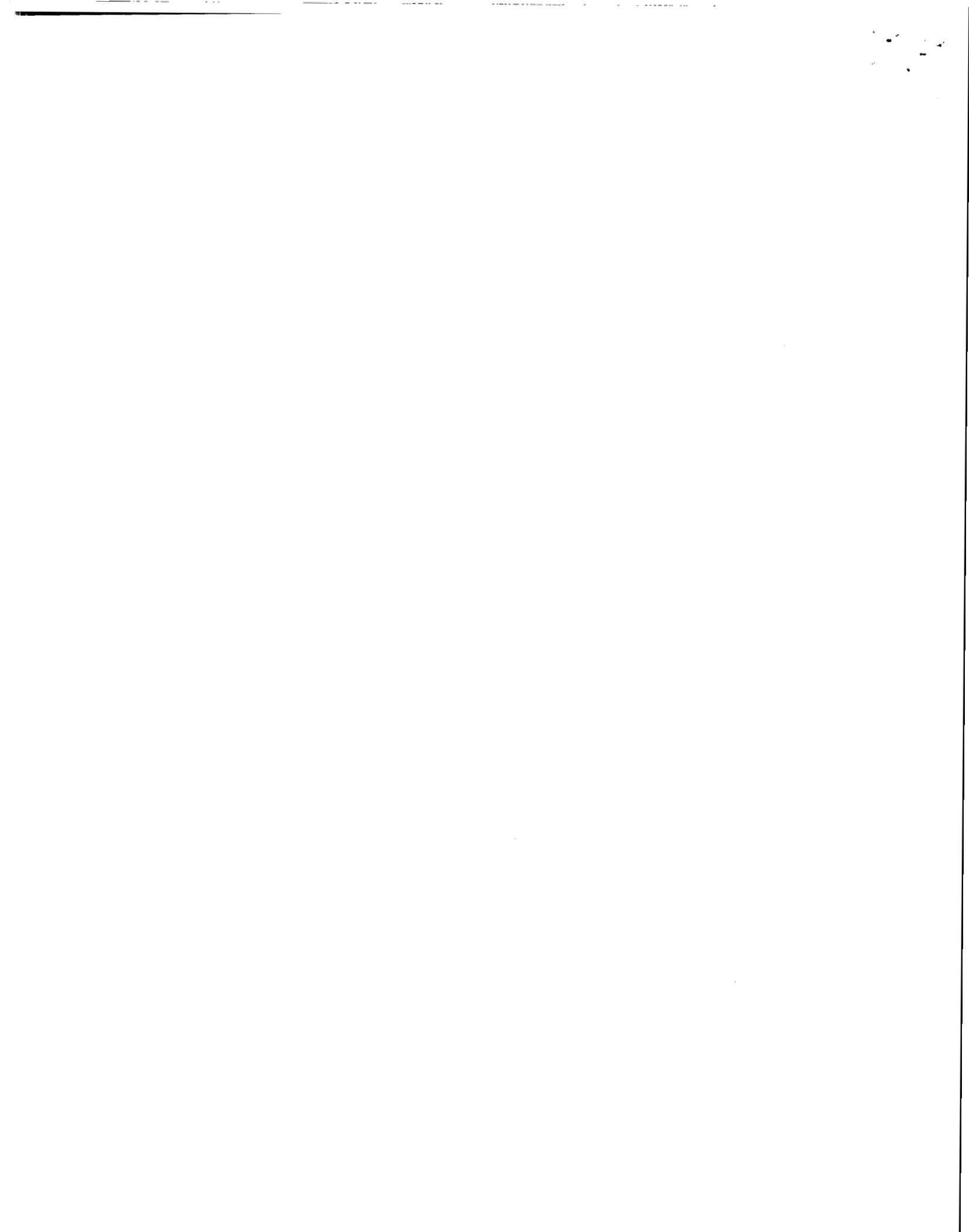
(Ask for copy of the study on the feasibility of this link. The study was done for the Air Force Operational Test Center)

As you can see, there are a number of facilities or groups of facilities that require links to REDCAP. The question is why incur the expense of moving REDCAP, training new people or moving Calspan people, and then linking REDCAP around the country? Why not just link it from where it is? Given that we have just added \$75M in additional equipment, have a fully-trained staff, and the Air Force does not incur costs for rent, utilities, guard force, etc., how can it be cost-effective to move REDCAP?

Thank you for affording use of this opportunity to be heard. Let me know if you need anything else.



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AWARD/CONTRACT PAGE 1 OF 1

2. PROC INSTRUMENT ID NO. (PIIN) * F33657-90-D-2100 3. EFFECTIVE DATE 01 OCT 1990 4. REQUISITION/PURCHASE REQUEST/PROJECT NO. 5. CERTIFIED FOR NATIONAL DEFENSE UNDER DOC DO-A7 REG 2/DMS REG 1 RATING

6. ISSUED BY USAF/AFSC Aeronautical Systems Division(ASD) Wright-Patterson AFB OH 45433-6503 BUYER: MARY BETH PEARSE, ASD/RWKE (513) 255-6257 CODE FQ7615 7. ADMINISTERED BY DCMAO, Buffalo 1103 Federal Bldg 111 West Huron Street Buffalo NY 14202-2392 CODE S33057. W/A J050 etc. D.64 PAS: NONE

8. CONTRACTOR NAME AND ADDRESS CALSPAN CORPORATION 4455 Genesee Street Buffalo, NY 14225 - 1967 CODE 92325 FACILITY CODE MAILING DATE JAN 03 1991 9. SUBMIT INVOICES (4 copies unless otherwise specified) TO ADDRESS SHOWN IN 10. DISCOUNT FOR PROMPT PAYMENT NET 1 5% 2 10% 3 15% DAYS DAYS OTHER IF "9" SEE SECT "G"

11. AUTHORIZED RATE A. PROGRESS PAY B. RECoup 80.00 - 80.0 12. CONTRACT PERCENT FEE 13. PAYMENT WILL BE MADE BY DCMN-MFC 495 Summer Street Boston MA 02210-2184 CODE S2202A IF "9" FOR MULTIPLE DISBURSING OFFICES, SEE SECT "G" 14. PURCHASE OFFICE POINT OF CONTACT ANY/AIR/ANY 15. SVC/AGENCY USE 16. TYPE CONTRACTOR C 17. SECURITY A. CLAS T B. DATE OF OR 254 90Oct02

18. CONTRACT ADMINISTRATION DATA 19. (RESERVED) 20. DATE SIGNED 21. SURV CRIT C 22. TOTAL AMOUNT \$ 660,473.00 MIN \$ 45,000,000.00 MAX

23. THIS PROCUREMENT WAS [] ADVERTISED [X] NEGOTIATED PURSUANT TO 10 USC 2304(A)(1) ; 41 USC 252(C)(1) ; 10 USC 2667 ()

24. TABLE OF CONTENTS (The following sections marked "X" are contained in the contract.)

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CONTRACTING OFFICER WILL COMPLETE BLOCK 25 OR 29, AS APPLICABLE

25. [X] CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return 1 copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified herein for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.) 29. [] AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____ including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed herein. This award consummates the contract which consists of the following documents (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.

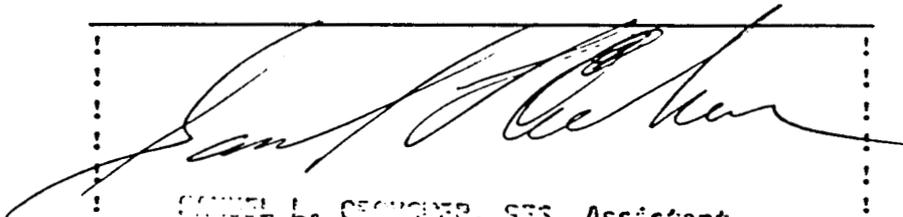
26. CONTRACTOR BY Edward M. Weisbeck (SIGNATURE OF PERSON AUTHORIZED TO SIGN) 30. UNITED STATES OF AMERICA BY Walter E. Ullmayer (SIGNATURE OF CONTRACTING OFFICER)

27. NAME AND TITLE OF SIGNER (TYPE OR PRINT) Edward M. Weisbeck Director of Contracts 28. DATE SIGNED 901107 YMMDD 31. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) WALTER E. ULLMAYER Contracting Officer 32. DATE SIGNED 20 NOV 1990 YMMDD

SECTION A - SOLICITATION/CONTRACT FORM

A-004

APPROVAL OF CONTRACT (FAR 52.204-1)


DANIEL L. CROUCHER, SES, Assistant
Contracting
Aeronautical Systems Division
ASD/PK 02 JAN 1991

(NOTE: Pursuant to AF FAR Sup 4.103 and ASD FAR Sup 1.601-92.3, the approval level for this contract including options, if any, is any amount over \$2,000,000.00.)

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST

<u>Item No</u>	<u>Supplies/Services</u>	<u>Quantity</u> <u>Purch Unit</u>	<u>Unit Price</u> <u>Total Item Amount</u>
0001	Info CLIN nour: REDCAP PROGRAM	Sec Class: U -	

descriptive data:

Operate Air Force Real-Time Electromagnetic Digitally Controlled Analyzer and Processer (REDCAP) Equipment, take statistical data samples, prepare test plans and make evaluations of selected ECM equipment, concepts or techniques in accordance with the Statement of Work (SOW) 20 Sep 90, (16 pages) Atch 1, Section J hereof. The specific effort called for by this CLIN will be identified in orders issued hereunder citing the applicable SubCLIN, in accordance with Contract Clause 52.216-18, Ordering, Section I. The Contractor shall not perform any effort nor incur any costs, nor shall the Government be obligated hereunder until the Contracting Officer issues an Order, and then only to the extent of the effort authorized by said order. All effort to be authorized under this CLIN shall be called for under the SubCLINs set forth below, the paragraph references are to the Statement of Work. The respective prices set forth for SubCLINs 0001AA through 0001CP and SubCLINs 0003AA thru 0003AE are valid only to SubCLINs authorized by orders issued on or before 30 Sep 93. The applicable unit price will be determined based on the fiscal year the effort is ordered. All SubCLINs may be ordered in multiple units, as required.

0001AA Info SubCLIN Sec Class: U
noun: SCENARIO PREPARATION
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Scenario Preparation Unit, in accordance with Paragraph 5.1.1.2 of the SOW, 20 Sep 90. - The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001AA)

UNIT PRICE:

FY 91 - \$3,378
FY 92 - \$3,530
FY 93 - \$3,689

0001AB Info SubCLIN Sec Class: U
noun: TEST PLAN SUPPLEMENTAL COMPLEXITY
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Test Plan Supplemental Complexity Unit in accordance with paragraph 5.1.1.3 of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$3,882
FY 92 - \$4,057
FY 93 - \$4,240

0001AC Info SubCLIN Sec Class: U
noun: TEST PLAN SUPPLEMENTAL NETWORKING
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Test Plan Supplemental Networking Unit in accordance with paragraph 5.1.1.4 of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$4,674
FY 92 - \$4,885
FY 93 - \$5,105

0001AD Info SubCLIN Sec Class: U
noun: TEST PLAN SUPPLEMENTAL RADAR E.U.
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Test Plan Supplemental Radar Environment Unit in accordance with paragraph 5.1.1.5 of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$5,649
FY 92 - \$5,903
FY 93 - \$6,170

0001AE Info SubCLIN Sec Class: U
noun: TEST PLAN SUPPLEMENTAL COMMEG
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Test Plan Supplemental Communication Environment Generator (COMMEG) Unit in accordance with paragraph 5.1.1.6 of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$5,375
FY 92 - \$5,617
FY 93 - \$5,871

0001AF Info SubCLIN Sec Class: U
noun: DATA REDUCTION ANALYSIS
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Data Reduction/Analysis Unit, in accordance with Paragraph 5.1.2.3 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001AF)

UNIT PRICE:

FY 91 - \$2,937
FY 92 - \$3,069
FY 93 - \$3,207

0001AG Info SubCLIN Sec Class: U
noun: BRIEFING SUPPORT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Briefing Support Unit, in accordance with Paragraph 5.1.4
of the SOW, 20 Sep 90 and Exhibit A002, Atch 2.

UNIT PRICE:

FY 91 - \$3,214
FY 92 - \$3,358
FY 93 - \$3,510

0001AH Info SubCLIN Sec Class: U
noun: SCOPE VIDEO RECORDING
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Scope Video Recording Unit, in accordance with Paragraph
5.1.5 of the SOW, 20 Sep 90 and Exhibit A001, Atch 2.

UNIT PRICE:

FY 91 - \$1,072
FY 92 - \$1,121
FY 93 - \$1,172

0001AJ Info SubCLIN Sec Class: U
noun: RADAR TYPE 1
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Radar Type 1, in accordance with Paragraph 5.2.1.1.1 of
the SOW, 20 Sep 90. The ratio of RSUH maintenance units
(0001BM) to be ordered is 4 (RSUH): 1 (0001AJ)

UNIT PRICE:

FY 91 - \$2,553
FY 92 - \$2,668
FY 93 - \$2,788

0001AK Info SubCLIN Sec Class: U
noun: RADAR TYPE 2
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Radar Type 2, in accordance with Paragraph 5.2.1.1.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 16 (RSUH): 1 (0001AK)

UNIT PRICE:

FY 91 - \$5,637
FY 92 - \$5,891
FY 93 - \$6,156

0001AL Info SubCLIN Sec Class: U
noun: RADAR TYPE 3
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Radar Type 3, in accordance with Paragraph 5.2.1.1.3 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 16 (RSUH): 1 (0001AL)

UNIT PRICE:

FY 91 - \$14,904
FY 92 - \$15,575
FY 93 - \$16,276

0001AM Info SubCLIN Sec Class: U
noun: RADAR TYPE 4
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Radar Type 4,, in accordance with Paragraph 5.2.1.1.4 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 16 (RSUH): 1 (0001AM)

UNIT PRICE:

FY 91 - \$17,471
FY 92 - \$18,257
FY 93 - \$19,079

0001AN Info SubCLIN Sec Class: U
noun: SEARCH RADAR INCREMENT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Search Radar Increment, in accordance with Paragraph 5.2.1.2.1 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 4 (RSUH): 1 (0001AN)

UNIT PRICE:

FY 91 - \$1,797
FY 92 - \$1,878
FY 93 - \$1,962

0001AP Info SubCLIN Sec Class: U
noun: HEIGHT FINDER INCREMENT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Height Finder Increment, in accordance with Paragraph 5.2.1.2.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 4 (RSUH): 1 (0001AP)

UNIT PRICE:

FY 91 - \$1,911
FY 92 - \$1,997
FY 93 - \$2,087

0001AQ Info SubCLIN Sec Class: U
noun: JAMMER TYPE 1
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Jammer Type 1, in accordance with Paragraph 5.2.1.3.1 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001AQ)

UNIT PRICE:

FY 91 - \$1,536
FY 92 - \$1,605
FY 93 - \$1,677

0001AR Info SubCLIN Sec Class: U
noun: JAMMER TYPE 2
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Jammer Type 2, in accordance with Paragraph 5.2.1.3.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 2 (RSUH): 1 (0001AR)

UNIT PRICE:

FY 91 - \$3,138
FY 92 - \$3,279
FY 93 - \$3,426

0001AS Info SubCLIN Sec Class: U
noun: JAMMER TYPE 3
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Jammer Type 3, in accordance with Paragraph 5.2.1.3.3 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 3 (RSUH): 1 (0001AS)

UNIT PRICE:

FY 91 - \$3,138
FY 92 - \$3,279
FY 93 - \$3,426

0001AT Info SubCLIN Sec Class: U
noun: JAMMER TYPE 4
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Jammer Type 4, in accordance with Paragraph 5.2.1.3.4 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 4 (RSUH): 1 (0001AT)

UNIT PRICE:

FY 91 - \$4,741
FY 92 - \$4,954
FY 93 - \$5,177

0001AU Info SubCLIN Sec Class: U
noun: SYNTHETIC RADAR NETWORK TYPE 1
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Synthetic Radar Network Type 1, in accordance with Paragraph 5.2.1.4.1 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 2 (RSUH): 1 (0001AU)

UNIT PRICE:

FY 91 - \$4,889
FY 92 - \$5,109
FY 93 - \$5,339

0001AV Info SubCLIN Sec Class: U
noun: SYNTHETIC RADAR NETWORK TYPE 2
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Synthetic Radar Network Type 2, in accordance with Paragraph 5.2.1.4.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 2 (RSUH): 1 (0001AV)

UNIT PRICE:

FY 91 - \$14,729
FY 92 - \$15,392
FY 93 - \$16,085

0001AW Info SubCLIN Sec Class: U
noun: PULSE ENVIRONMENT GENERATOR
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Pulse Environment Generator (PEG) Unit, in accordance with Paragraph 5.2.1.5 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 8 (RSUH): 1 (0001AW)

UNIT PRICE:

FY 91 - \$8,260
FY 92 - \$8,631
FY 93 - \$9,020

0001AX Info SubCLIN Sec Class: U
 noun: COMMUNICATIONS SYSTEM TYPE 1
 site codes pqa: S acp: S fob: S
 pr/mipr data: FY7615-90-01172

descriptive data:

Communications System Type 1, in accordance with Paragraph 5.2.1.6.1 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 2 (RSUH): 1 (0001AX)

UNIT PRICE:

FY 91 - \$710
 FY 92 - \$744
 FY 93 - \$776

0001AY Info SubCLIN Sec Class: U
 noun: COMMUNICATIONS SYSTEM TYPE 2
 site codes pqa: S acp: S fob: S
 pr/mipr data: FY7615-90-01172

descriptive data:

Communications System Type 2, in accordance with Paragraph 5.2.1.6.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 4 (RSUH): 1 (0001AY)

UNIT PRICE:

FY 91 - \$3,633
 FY 92 - \$3,797
 FY 93 - \$3,968

0001AZ Info SubCLIN Sec Class: U
 noun: COMMUNICATIONS SYSTEM TYPE 3
 site codes pqa: S acp: S fob: S
 pr/mipr data: FY7615-90-01172

descriptive data:

Communications System Type 3, in accordance with Paragraph 5.2.1.6.3 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 4 (RSUH): 1 (0001AZ)

UNIT PRICE:

FY 91 - \$6,152
 FY 92 - \$6,428
 FY 93 - \$6,718

0001BA Info SubCLIN Sec Class: U
 noun: COMMUNICATIONS SYSTEM TYPE 4
 site codes pqa: S acp: S fob: S
 pr/mipr data: FY7615-90-01172

descriptive data:

Communications System Type 4, in accordance with Paragraph 5.2.1.6.4 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 4 (RSUH): 1 (0001BA)

UNIT PRICE:

FY 91 - \$16,702
 FY 92 - \$17,453
 FY 93 - \$18,239

0001BB Info SubCLIN Sec Class: U
 noun: COMMUNICATIONS ENVIRONMENT GENERATOR
 site codes pqa: S acp: S fob: S
 pr/mipr data: FY7615-90-01172

descriptive data:

Communications Environment Generator (COMMEG) unit, in accordance with Paragraph 5.2.1.7 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 8 (RSUH): 1 (0001BB)

UNIT PRICE:

FY 91 - \$8,571
 FY 92 - \$8,957
 FY 93 - \$9,360

0001BC Info SubCLIN Sec Class: U
 noun: ICAD STATION UNIT TYPE 1
 site codes pqa: S acp: S fob: S
 pr/mipr data: FY7615-90-01172

descriptive data:

Interceptor Control and Display (ICAD) Station Unit Type 1, in accordance with Paragraph 5.2.1.8.1 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 2 (RSUH): 1 (0001BC)

UNIT PRICE:

FY 91 - \$5,407
 FY 92 - \$5,651
 FY 93 - \$5,873

0001BD Info SubCLIN Sec Class: U
noun: ICAD STATION UNIT TYPE 2
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

ICAD Station Unit Type 2, in accordance with Paragraph 5.2.1.8.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 4 (RSUH): 1 (0001BD)

UNIT PRICE:

FY 91 - \$5,668
FY 92 - \$5,723
FY 93 - \$6,189

0001BE Info SubCLIN Sec Class: U
noun: ICAD STATION UNIT TYPE 3
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

ICAD Station Type 3, in accordance with Paragraph 5.2.1.8.3 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 6 (RSUH): 1 (0001BE)

UNIT PRICE:

FY 91 - \$6,047
FY 92 - \$6,319
FY 93 - \$6,603

0001BF Info SubCLIN Sec Class: U
noun: ICAD STATION UNIT TYPE 4
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

ICAD Station Type 4, in accordance with Paragraph 5.2.1.8.4 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 8 (RSUH): 1 (0001BF)

UNIT PRICE:

FY 91 - \$6,307
FY 92 - \$6,591
FY 93 - \$6,887

0001BG Info SubCLIN Sec Class: U
noun: C3 NETWORK TYPE 1
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Command, Control and Communications (C3) Network Type 1,
in accordance with Paragraph 5.2.1.9.1 of the SOW,
20 Sep 90. The ratio of RSUH maintenance units (0001BM)
to be ordered is 4 (RSUH): 1 (0001BG)

UNIT PRICE:

FY 91 - \$3,164
FY 92 - \$3,306
FY 93 - \$3,455

0001BH Info SubCLIN Sec Class: U
noun: C3 NETWORK TYPE 2
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

C3 Network Type 2, in accordance with Paragraph 5.2.1.9.2
of the SOW, 20 Sep 90. The ratio of RSUH maintenance
units (0001BM) to be ordered is 6 (RSUH): 1 (0001BH)

UNIT PRICE:

FY 91 - \$4,867
FY 92 - \$5,086
FY 93 - \$5,315

0001BJ Info SubCLIN Sec Class: U
noun: C3 NETWORK TYPE 3
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

C3 Network Type 3, in accordance with Paragraph 5.2.1.9.3
of the SOW, 20 Sep 90. The ratio of RSUH maintenance
units (0001BM) to be ordered is 12 (RSUH): 1 (0001BJ)

UNIT PRICE:

FY 91 - \$6,562
FY 92 - \$6,857
FY 93 - \$7,166

0001BK Info SubCLIN Sec Class: U
noun: SIMULATOR PREP AND CHECKOUT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Simulator Preparation and Checkout Procedures, in accordance with Paragraph 5.2.2.1 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001BK)

UNIT PRICE:

FY 91 - \$3,237
FY 92 - \$3,383
FY 93 - \$3,535

0001BL Info SubCLIN Sec Class: U
noun: CONFIGURATION RESTORATION
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Configuration Restoration unit in accordance with Paragraph 5.2.2.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001BL)

UNIT PRICE:

FY 91 - \$2,385
FY 92 - \$2,492
FY 93 - \$2,605

0001BM Info SubCLIN Sec Class: U
noun: SIMULATOR MAINTENANCE
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Simulator Maintenance in accordance with Paragraph 5.2.2.3 of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$850
FY 92 - \$897
FY 93 - \$946

0001BN Info SubCLIN Sec Class: U
noun: TEST MANAGEMENT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Test Management, in accordance with Paragraph 5.2.3.1 of
the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$4,761

FY 92 - \$4,975

FY 93 - \$5,199

0001BP Info SubCLIN Sec Class: U
noun: TEST DIRECTION
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Test Direction, in accordance with Paragraph 5.2.3.2 of
the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$3,998

FY 92 - \$4,178

FY 93 - \$4,366

0001BQ Info SubCLIN Sec Class: U
noun: OPERATOR TRAINING
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Operator Training, in accordance with Paragraph 5.2.3.3
of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$3,998

FY 92 - \$4,178

FY 93 - \$4,366

0001BR Info SubCLIN Sec Class: U
noun: OPERATOR BRIEFING/DEBRIEFING
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:
Operator Briefing/Debriefing in accordance with Paragraph
5.2.3.4 of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$3,998
FY 92 - \$4,178
FY 93 - \$4,366

0001BS Info SubCLIN Sec Class: U
noun: OPERATOR SUPPORT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:
Operator Support in accordance with Paragraph 5.2.3.5 of
the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$1,152
FY 92 - \$1,220
FY 93 - \$1,294

0001BT Info SubCLIN Sec Class: U
noun: REDCAP COMPUTATIONAL SUPPORT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:
REDCAP Computational Support in accordance with Paragraph
5.2.3.6 of the SOW, 20 Sep 90. The ratio of RSUH
maintenance units (0001BM) to be ordered
is 8 (RSUH): 1 (0001BT)

UNIT PRICE:

FY 91 - \$676
FY 92 - \$706
FY 93 - \$738

0001BU Info SubCLIN Sec Class: U
noun: ENGINEERING SUPPORT-A
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Engineering Support A in accordance with Paragraph 5.2.3.7.1 of the SOW, 20 Sep 90. Written justification shall accompany each request which will be subjected to rigid review standards.

UNIT PRICE:

FY 91 - \$4,721
FY 92 - \$4,933
FY 93 - \$5,155

0001BV Info SubCLIN Sec Class: U
noun: ENGINEERING SUPPORT-B
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Engineering Support B in accordance with Paragraph 5.2.3.7.2 of the SOW, 20 Sep 90. Written justification shall accompany each request which will be subjected to rigid review standards.

UNIT PRICE:

FY 91 - \$3,149
FY 92 - \$3,291
FY 93 - \$3,439

0001BW Info SubCLIN Sec Class: U
noun: ENGINEERING SUPPORT C
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Engineering Support C in accordance with Paragraph 5.2.3.7.3 of the SOW, 20 Sep 90. Written justification shall accompany each request which will be subjected to rigid review standards.

UNIT PRICE:

FY 91 - \$2,384
FY 92 - \$2,492
FY 93 - \$2,604

0001BX Info SubCLIN Sec Class: U
noun: CONVENTIONAL RADAR CLUTTER
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Conventional Radar Clutter in accordance with Paragraph 5.3.1.3.1 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001BX)

UNIT PRICE:

FY 91 - \$768
FY 92 - \$803
FY 93 - \$839

0001BY Info SubCLIN Sec Class: U
noun: SUAWACS CLUTTER
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Soviet Union Airborne Warning and Control System (SUAWACS) Clutter, in accordance with Paragraph 5.3.1.3.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001BY)

UNIT PRICE:

FY 91 - \$1,398
FY 92 - \$1,461
FY 93 - \$1,527

0001BZ Info SubCLIN Sec Class: U
noun: POINT CHAFF MODEL
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Point Chaff Model, in accordance with Paragraph 5.3.1.4 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001BZ)

UNIT PRICE:

FY 91 - \$823
FY 92 - \$860
FY 93 - \$898

0001CA Info SubCLIN Sec Class: U
noun: TERRAIN MASKING MODEL
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

TERRAIN Masking Model in accordance with Paragraph 5.3.1.5 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001CA)

UNIT PRICE:

FY 91 - \$768
FY 92 - \$803
FY 93 - \$839

0001CB Info SubCLIN Sec Class: U
noun: REACTIVE PENETRATOR MANEUVERS
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Reactive Penetrator Maneuvers, in accordance with Paragraph 5.3.1.6.1 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001CB)

UNIT PRICE:

FY 91 - \$768
FY 92 - \$803
FY 93 - \$839

0001CC Info SubCLIN Sec Class: U
noun: REACTIVE PENETRATOR JAMMING MODEL
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Reactive Penetrator Jamming Model, in accordance with Paragraph 5.3.1.6.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001CC)

UNIT PRICE:

FY 91 - \$651
FY 92 - \$681
FY 93 - \$711

0001CD Info SubCLIN Sec Class: U
noun: SEMIAUTOMATIC TRACKING & VECTORING
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Semiautomatic Tracking and Vectoring, in accordance with Paragraph 5.3.1.7 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001CD)

UNIT PRICE:

FY 91 - \$796
FY 92 - \$832
FY 93 - \$869

0001CE Info SubCLIN Sec Class: U
noun: TERRAIN FOLLOWING MODE 1
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Terrain Following Mode 1, in accordance with Paragraph 5.3.1.8.1 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001CE)

UNIT PRICE:

FY 91 - \$627
FY 92 - \$655
FY 93 - \$684

0001CF Info SubCLIN Sec Class: U
noun: TERRAIN FOLLOWING MODE 2
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Terrain Following Mode 2, in accordance with Paragraph 5.3.1.8.2 of the SOW, 20 Sep 90. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0001CF)

UNIT PRICE:

FY 91 - \$685
FY 92 - \$716
FY 93 - \$748

0001CG Info SubCLIN Sec Class: U
noun: MODEL INPUT DATA COLLECTION
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Model Input Data Collection, in accordance with Paragraph
5.3.1.9 of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$3,998
FY 92 - \$4,178
FY 93 - \$4,366

0001CH Info SubCLIN Sec Class: U
noun: MODEL DEVELOPMENT AND MODIFICATION
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Model Development and Modification in accordance with
Paragraph 5.3.2 of the SOW, 20 Sep 90. The ratio of RSUH
maintenance units (0001BM) to be ordered is 1 (RSUH): 1
(0001CH)

UNIT PRICE:

FY 91 - \$3,378
FY 92 - \$3,530
FY 93 - \$3,689

0001CJ Info SubCLIN Sec Class: U
noun: NON-STANDARD MODEL EXECUTION
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Non-Standard Model Execution, in accordance with
paragraph 5.3.3 of the SOW, 20 Sep 90. The ratio of RSUH
maintenance units (0001BM) to be ordered is 1 (RSUH): 1
(0001CJ)

UNIT PRICE:

FY 91 - \$3,669
FY 92 - \$3,834
FY 93 - \$4,007

0001CK Info SubCLIN Sec Class: U
noun: EVALUATION MATERIAL SUPPORT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Evaluation Material Support, in accordance with Paragraph 5.4 of the SOW, 20 Sep 90. Each delivery order citing this SubCLIN shall include an itemized list of materials being obtained in the order.

UNIT PRICE:

FY 91 - \$130
FY 92 - \$130
FY 93 - \$130

0001CL Info SubCLIN Sec Class: U
noun: REDCAP STUDY UNIT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

REDCAP Study Unit in accordance with Paragraphs 5.5 and 5.5.1 of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$5,225
FY 92 - \$5,460
FY 93 - \$5,706

0002

Info CLIN

Sec Class: U

noun: DATA

site codes pqa: D acp: D fob: D

pr/mipr data: FY7615-90-01172

descriptive data:

Data for Air Force Real-Time Digitally Controlled Analyzer and Processer (REDCAP) Equipment, in accordance with the Statement of Work (SOW) 20 Sep 90, Section J hereof. The specific effort called for by this CLIN will be identified in orders issued hereunder citing the applicable SubCLIN, in accordance with Contract Clause 52.216-18, Ordering, Section I. The Contractor shall not perform any effort nor incur any costs, nor shall the Government be obligated hereunder until the Contracting Officer issues an Order, and then only to the extent of the effort authorized by said order. All effort to be authorized under this item shall be called for under the SubCLINs set forth below, the paragraph references are to the Statement of Work. The respective prices set forth for SubCLINs 0002AA through 0002AG are valid only if the SubCLINs are authorized by orders issued on or before 30 Sep 93. The applicable unit price will be determined based on the fiscal year the effort is ordered. All SubCLINs may be ordered in multiple units, as required.

0002AA Info SubCLIN Sec Class: U
noun: TEST/STUDY IMPLEMENTATION PLAN
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-90-01172

descriptive data:
Test Study Implementation Plan, in accordance with
paragraph 5.1.1.1 of the SOW, 20 Sep 90, and Exhibit
A014, Atch 2 herein.

UNIT PRICE:

FY 91 - \$3,559
FY 92 - \$3,719
FY 93 - \$3,887

0002AB Info SubCLIN Sec Class: U
noun: TEST PLANNING REQUIREMENT IDENTIFICATION
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-90-01172

descriptive data:
Test Planning Identification, in accordance with paragraph
5.1.1.1.1 of the SOW, 20 Sep 90, and Exhibit A014, Atch 2
herein.

UNIT PRICE:

FY 91 - \$5,760
FY 92 - \$6,020
FY 93 - \$6,291

0002AC Info SubCLIN Sec Class: U
noun: TEST PLAN
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-90-01172

descriptive data:
Test Plan, in accordance with paragraph 5.1.1.1.2,
5.1.1.3, 5.1.1.4, 5.1.1.5 and 5.1.1.6 of the SOW,
20 Sep 90, and Exhibit A015, Atch 2 herein.

UNIT PRICE:

FY 91 - \$12,687
FY 92 - \$13,260
FY 93 - \$13,859

0002AD Info SubCLIN Sec Class: U
noun: DATA MEMOS
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-90-01172

descriptive data:

Data Memos, in accordance with paragraph 5.1.2.1 of the SOW, 20 Sep 90, and Exhibit A016, (Test Report) Atch 2. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0002AD)

UNIT PRICE:

FY 91 - \$4,720
FY 92 - \$4,933
FY 93 - \$5,157

0002AE Info SubCLIN Sec Class: U
noun: TEST REPORTS
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-90-01172

descriptive data:

Test Reports, in accordance with paragraph 5.1.2.2 of the SOW, 20 Sep 90 and Exhibit A010, Atch 2. The ratio of RSUH maintenance units (0001BM) to be ordered is 1 (RSUH): 1 (0002AE)

UNIT PRICE:

FY 91 - \$31,876
FY 92 - \$33,327
FY 93 - \$34,844

0002AF Info SubCLIN Sec Class: U
noun: STUDY REPORTS
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-90-01172

descriptive data:

Study Reports, in accordance with paragraph 5.1.3 of the SOW, 20 Sep 90 and Exhibit A005, Atch 2.

UNIT PRICE:

FY 91 - \$17,677
FY 92 - \$18,481
FY 93 - \$19,321

0002AG Info SubCLIN Sec Class: U
noun: REDCAP STUDY REVIEW
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-90-01172

descriptive data:

REDCAP Study Review Unit, in accordance with paragraph 5.5.2 of the SOW, 20 Sep 90, and Exhibits A002, A006 and A007, Atch 2.

UNIT PRICE:

FY 91 - \$7,122
FY 92 - \$7,446
FY 93 - \$7,784

0003 Info CLIN Sec Class: U
noun: TRIPS
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Trips, in accordance with paragraph 5.7 of the SOW, 20 Sep 90, as set forth in the items below. The applicable unit price will be determined based on the fiscal year the effort is ordered. All SubCLINs may be ordered as multiple units, as required.

0003AA Info SubCLIN Sec Class: U
noun: TRIP, TYPE 1
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Trip, Type 1, in accordance with paragraph 5.7.1 of the SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$802
FY 92 - \$849
FY 93 - \$901

0003AB Info SubCLIN Sec Class: U
noun: TRIP TYPE 2
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:
Trip, Type 2, in accordance with paragraph 5.7.2 of the
SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$1,961
FY 92 - \$2,079
FY 93 - \$2,203

0003AC Info SubCLIN Sec Class: U
noun: TRIP, TYPE 3
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:
Trip Type 3, in accordance with paragraph 5.7.3 of the
SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$2,775
FY 92 - \$2,941
FY 93 - \$3,118

0003AD Info SubCLIN Sec Class: U
noun: TRIP, TYPE 4
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:
Trip, Type 4, in accordance with paragraph 5.7.4 of the
SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$6,009
FY 92 - \$6,370
FY 93 - \$6,752

0003AE Info SubCLIN Sec Class: U
noun: TRIP TYPE 5
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Trip, Type 5, in accordance with paragraph 5.7.5 of the
SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$6,388
FY 92 - \$6,772
FY 93 - \$7,177

0004 Info CLIN Sec Class: U
noun: RSUH ADJUSTMENT
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-90-01172

descriptive data:

Radar Simulator Usage Hours (RSUH) in accordance with
Special Contract Requirements, SECTION H, paragraph 017,
entitled "Maintenance" - (RSUH)" and paragraph 7.2 of the
SOW, 20 Sep 90.

UNIT PRICE:

FY 91 - \$850
FY 92 - \$897
FY 93 - \$946

0005 OPTION CLIN Sec Class: U
noun: OPTION CLIN

descriptive data:

The Contractor shall provide Test, Operations and
Maintenance (TO&M) services for REDCAP for one-year
beginning 36 months after the basic contract award in
accordance with the SOW, 20 Sep 90, and Special Contract
Provision H-018. Tasking shall remain the same as set
forth in Items 0001, 0002, 0003, 0004 and 0007.

0006 OPTION CLIN Sec Class: U
noun: OPTION TWO

descriptive data:

The Contractor shall provide Test, Operations and Maintenance (TO&M) services for REDCAP for one-year beginning 48 months after the basic contract award in accordance with the SOW, 20 Sep 90, and Special Contract Requirement H-019. Tasking shall remain the same as set forth in Items 0001, 0002, 0003, 0004 and 0007.

0007 INFO CLIN Sec Class: U
noun: ADDITIONAL DATA SUPPORT
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-90-01172

descriptive data:

Additional Data Support will be provided by the Contractor in accordance with SOW, 20 Sep 90 and Exhibits A003, A008, A011, A012, Atch 2 herein. This support is priced on a Fiscal Year basis with payment due by 30 Oct of each year indicated.

FY 91 - \$160,473
FY 92 - \$167,440
FY 93 - \$175,148

SECTION D - PACKAGING AND MARKING

D-041 COMMERCIAL PACKAGING

Preservation, packaging, packing and marking of the supplies and data called for hereunder shall be in accordance with Contractor's standard commercial practice.

SECTION E - INSPECTION AND ACCEPTANCE

A. NOTICE: The following contract clauses pertinent to this SECTION are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION CLAUSES

52.246-7 INSPECTION OF RESEARCH AND DEVELOPMENT-FIXED PRICE (APR 1984)

52.246-16 RESPONSIBILITY FOR SUPPLIES (APR 1984)

II. DEPARTMENT OF DEFENSE FAR SUPPLEMENT CLAUSES

252.246-7000 MATERIAL INSPECTION AND RECEIVING REPORT (DEC 1969)

B. Additional Full Text Clauses

E-061 INSPECTION AND ACCEPTANCE

(a) Except as provided below, final inspection and acceptance by the Government of the Items set forth herein shall be at Contractor's plant.

(b) Inspection and acceptance of data shall be in accordance with the Contract Data Requirements List (CDRLs) attached hereto, as implemented by Air Force Regulation 310-1, dated 10 November 1989, and as supplemented by AFSC Supplement 1, dated 29 November 1984, and by ASD Supplement 1, 14 June 1986. In those instances where the symbol "LT" appears in the block which would otherwise designate the point for final inspection and acceptance, the place for such final inspection and acceptance shall be at the office designated as the "Technical Office."

(c) Services shall be finally inspected and accepted by the Government at the place(s) of performance.

SECTION F - DELIVERIES OR PERFORMANCE

A. NOTICE: The following contract clauses pertinent to this SECTION are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION CLAUSES

52.212-13 STOP WORK ORDER (AUG 1989)
 52.212-15 GOVERNMENT DELAY OF WORK (APR 1984)
 52.247-30 F.O.B. ORIGIN, CONTRACTOR'S FACILITY (APR 1984)
 (In accordance with AFSC FAR Sup 47.301-1(c)(3), the F.O.B.
 location is Buffalo, New York.)
 52.247-34 F.O.B. DESTINATION (APR 1984)
 52.247-55 F.O.B. POINT FOR DELIVERY OF GOVERNMENT-FURNISHED PROPERTY
 (APR 1984)

B. AF FAR Sup Clauses in Full Text

52.225-9000 EVIDENCE OF SHIPMENT ON FOREIGN MILITARY SALES (FMS)
 CONTRACTS (JAN 1990)

In accordance with paragraph (a)(7) of the Invoices clause of this contract, for FMS shipments, the Contractor shall provide to the paying office evidence of shipment that will consist of both a DD Form 250, Material Inspection and Receiving Report, and the carrier's receipt such as the Commercial Bill of Lading, the Government Bill of Lading, the United Parcel Service pick-up record, other package carrier pick-up document, or the United States Postal Service receipt. For those FMS shipments that do not require a DD Form 250, the Contractor shall provide the paying office one of the carrier's receipts listed above as evidence of shipment.

C. Additional Full Text Clauses

F-081M DELIVERIES OR PERFORMANCE

(a) The Contractor shall deliver/perform the Item(s) called for hereunder in accordance with the Line Item(s) set forth in the individual delivery orders. The abbreviation "U" as may be used hereunder means either "Unknown" or "To Be Determined." The abbreviation "ASREQ" as may be used hereunder means "As Required Herein." The abbreviation "ARO," if used hereunder, means "after receipt by the Contractor of an executed copy of this contract."

(b) The period of performance and time of deliveries will be specified on the Delivery Orders issued hereunder. The ordering period of the contract will extend until thirty six (36) months from the effective date of the contract. See Contract Clauses 52.216.18, Ordering, Section I.

(c) Data shall be consigned to the addresses indicated on the Exhibits, Section J, Attachment 2, hereof.

SECTION G - CONTRACT ADMINISTRATION DATA

G-096 INVENTIONS REPORTS ADDRESS

The Administrative Contracting Officer, upon receipt of invention reports called for by the Patent Rights clause of the contract, shall forward same to:

~~HQ Air Force Contract Law Center
 Directorate of Acquisition Law Services
 Patent and Data Division
 AFCLC/JANP
 Wright-Patterson AFB, Ohio 45433-5000~~

G-097 DD FORM 254

DD Form 254, Contract Security Classification Specification, as set forth in SECTION J hereof, is applicable hereto.

G-098 OTHER CONTRACT ADMINISTRATIVE DATA

1. PURCHASE REQUEST & INITIATOR: FY7615-90-01172
 ASD/RWWS 1LT Mordecai Drazin
2. NSC: AC64
3. MONITORING OFFICE: ASD/RWKE
4. Accounting Classification Data is to be set forth on the individual delivery orders hereto.

AFDTC/JAN ✓
 501 W VanMatre Suite 1
 Eglin AFB, FL 32542-5487

SECTION H - SPECIAL CONTRACT REQUIREMENTS**INDEX**

52.209-9101 ORGANIZATIONAL CONFLICT OF INTEREST (JUN 1989)
ALTERNATE IV (JUN 1989)
ALTERNATE VI (JUN 1989)

H-001 SPECIAL PARAGRAPH NUMBERING SYSTEM

H-002 COMSEC NOTICE

H-003 INCORPORATION OF REFERENCED DOCUMENTS

H-004 REDIRECTION OF EFFORT

H-005 INCORPORATION OF SECTION K OF THE SOLICITATION BY REFERENCE

H-006 UNDEFINITIZED CONTRACTUAL ACTIONS (UCAS)

H-007 REIMBURSEMENT, INTEREST CHARGES, AND PENALTIES FOR
OVERPAYMENT

H-008 FOREIGN SOURCES

H-009 FOREIGN NATIONALS

H-010 MAXIMUM TOTAL ORDER

H-011 IMPLEMENTATION OF FAR 52.219-9

H-013 CONTRACTOR PERSONNEL

H-014 COMSEC ACCESS

H-015 CLASSIFIED ADP

H-016 TEMPEST REQUIREMENTS

H-017 MAINTENANCE (RADAR SIMULATOR USAGE HOURS) (RSUH)

H-018 OPTION 1 (CLIN 0005)

H-019 OPTION 2 (CLIN 0006)

H-103 ACCELERATED DELIVERY

H-104 RELEASE OF INFORMATION

H-250 GOVERNMENT FURNISHED PROPERTY

H-360 MODIFICATION OF DATA REQUIREMENTS

SECTION H - SPECIAL CONTRACT REQUIREMENTS**A. AFSC FAR Sup Clauses in Full Text**

52.209-9101 **ORGANIZATIONAL CONFLICT OF INTEREST (JUN 1989)**
 Alternate IV (JUN 1989)
 Alternate VI (JUN 1989)

(a) To prevent conflicting roles which may bias the Contractor's judgement or objectivity, or to preclude the Contractor from obtaining an unfair competitive advantage in concurrent or future acquisitions, the Contractor will be restricted as set forth in subparagraph (c).

(b) The following descriptions or definitions apply:

(1) "Proprietary Information" means all information designated as proprietary in accordance with law and regulation, and held in confidence or disclosed under restriction to prevent uncontrolled distribution. Examples include limited or restricted data, trade secrets, sensitive financial information, or computer software; and may appear in cost and pricing data or involve classified information.

(2) "Contractor" means the business entity receiving award of this contract, its parents, affiliates, divisions and subsidiaries.

(c) The Contractor will gain access to proprietary information of other companies during contract performance. The Contractor agrees to enter into company-to-company agreements to (A) protect other company's information from unauthorized use or disclosure for as long as it is considered proprietary by the other company and (B) refrain from using the information for any purpose other than that for which it was furnished. For information purposes, the Contractor shall furnish copies of these agreements to the Contracting Officer. These agreements are not intended to protect information furnished voluntarily without restriction which is available to the Government or to the Contractor from other sources without restriction.

(d) The above restrictions shall be included in all subcontracts, teaming arrangements, and other agreements calling for performance of work related to this contract, unless excused in writing by the Contracting Officer.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)B. Additional Full Text Clauses

H-001 SPECIAL PARAGRAPH NUMBERING SYSTEM

The following paragraph numbers used in this SECTION are sequential but not necessarily consecutive. Paragraphs in the number series H-002 thru H-099 are considered unique to this contract. The three-digit numbering scheme is used throughout this document (i.e., A-002, F-002, etc.). This paragraph and any paragraph in the number series H-100 thru H-999 are considered to be standard language clauses which are normally used with this type/kind of contract. The parenthetical note which may appear at the end of such standard language clauses is a Government administrative procedure used to track the paragraph's source and date. Any standard paragraph with an "M" immediately following the three-digit number denotes a standard language clause which has been modified to fit the requirements of this document.

H-002 COMSEC NOTICE

All communications with DoD organizations are subject to communications security (COMSEC) review. Contractor personnel will be aware that telecommunications networks are continually subject to intercept by unfriendly intelligence organizations. The DoD has authorized the military departments to conduct COMSEC monitoring and recording of telephone calls originating from, or terminating at, DoD organizations. Therefore, civilian Contractor personnel are advised that any time they place a call to, or receive a call from, a USAF organization, they are subject to COMSEC procedures. The Contractor will assume the responsibility for ensuring wide and frequent dissemination of the above information to all employees dealing with official DoD information. (AFR 56-50, Para 9-5a)

H-003 INCORPORATION OF REFERENCED DOCUMENTS

All specifications, exhibits, drawings or other documents which are referred to in this contract, whether or not attached, are incorporated herein by reference.

H-004 REDIRECTION OF EFFORT

Notwithstanding any other provisions of this contract, the assigned Contracting Officer shall be the only individual authorized to redirect the effort or in any way amend any of the terms of this contract.

H-005 INCORPORATION OF SECTION K OF THE SOLICITATION BY REFERENCE

Pursuant to Federal Acquisition Regulation (FAR) 15.406-1(b), SECTION K of the solicitation is hereby incorporated herein by reference.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-006

UNDEFINITIZED CONTRACTUAL ACTIONS (UCAS)

In the event that undefinitized contractual actions (UCAs) are issued pursuant to the provisions of this contract, the following terms and conditions substantially as shown below will be included in any contract modification/order which directs UCAs:

"1. Pursuant to DFARS 217.7504(a), the following FAR clause is hereby incorporated and implemented as shown:

52.216-24 LIMITATION OF GOVERNMENT LIABILITY (APR 1984)
 [Regarding the amount to be inserted in paragraph (a) of the above-referenced clause, the Contractor is not authorized to make expenditures or incur obligations exceeding \$(Enter amount obligated) for the work authorized under this UCA. Regarding the amount set forth in paragraph (b) of said clause, the maximum amount for which the Government shall be liable if this UCA is terminated is \$(Enter amount obligated).]

2. Pursuant to DFARS 217.7504(b), the following FAR clause is hereby incorporated and implemented as shown:

52.216-25 CONTRACT DEFINITIZATION (APR 1984)
 [For the purpose of this UCA, the term "letter contract" used in the above-referenced clause is replaced with "UCA". The information to be inserted in the above-referenced clause is as follows:
 - In paragraph (a), insert reference to a (type contract/proposal) in each blank, as appropriate.
 - In paragraph (b), the following definitization schedule shall apply:

<u>Event</u>	<u>Date</u>
Receipt of Contractor's Proposal	
Negotiations Complete	
Definitive Document Distribution]

3. Contractor Notification. The Contractor shall notify the Contracting Officer in writing whenever it has reason to believe that the costs it expects to incur under this contractual action in the next 60 days, when added to all costs previously incurred under this contractual action, will exceed 75 percent of the total amount so far obligated by this contractual action by the Government. The notice shall state the estimated amount of additional funds required to continue performance until Definitive Document Distribution date specified in paragraph 2. above or a date mutually agreed to by the parties hereto."

(ASD FAR 17-9004)

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)**H-007 REIMBURSEMENT, INTEREST CHARGES, AND PENALTIES FOR OVERPAYMENT**

Notwithstanding any other provision of this contract, if the Government makes any overpayment under this contract subject to 10 U.S. Code 2306(a) and the overpayment was due to Contractor submission of inaccurate, incomplete or noncurrent cost or pricing data, the Contractor shall be liable to the Government (1) for interest on the amount of such overpayment to be computed from the date the payment was made to the Contractor to the date the Government is repaid at the rate established by the Secretary of the Treasury under Section 6621 of the Internal Revenue Code of 1954 and (2) if such submission was a knowing submission, the Contractor shall be liable to the Government for an additional amount equal to the amount of the overpayment. (ASD/PM Policy Letter 87-071, 12 Aug 87)

H-008 FOREIGN SOURCES

In the event that the Contractor anticipates soliciting foreign sources for any work under this contract, the Contractor shall notify the Contracting Officer (CO) 10 working days before either applying for an export license under International Traffic in Arms Regulation (ITAR), 22 CFR Sections 121-128, or before solicitation of the foreign sources, whichever shall occur first. This notification shall include detailed description of the Government data/equipment to be exported and a copy of the application for an export license, if such application has been made. This notification to the CO shall not be construed as an application for an export license, nor shall it in any way be interpreted to impede the Contractor's right to apply for an export license. However, if the CO disagrees with the application, the Contractor will be so notified. (ASD FAR 52.204-9201)

[NOTE: This clause does not apply to work associated with Foreign Military Sales (FMS)]

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-009

FOREIGN NATIONALS

(a) For purposes of this clause, foreign nationals are all persons not citizens of, or immigrant aliens to, the United States. Nothing in this clause is intended to waive any requirement imposed by any other US Government agency with respect to employment of foreign nationals or export control.

(b) The Contractor acknowledges that equipment/technical data generated or delivered in performance of this contract is controlled by the International Traffic in Arms Regulation (ITAR) 22 CFR Sections 121-128, and may require an export license before assigning any foreign national to perform work under this contract or before granting access to foreign nationals to any equipment/technical data generated or delivered in performance of this contract (See 22 CFR Section 125.03 in this regard). The Contractor agrees to notify the Contracting Officer (CO) 10 working days prior to assigning or granting access to any work, equipment or technical data generated or delivered in performance of this contract. This notification will include the name and country of origin of the foreign national, the specific work, equipment or data to which the person will have access, and whether the foreign national is cleared to have access to technical data (Reference: Section 3 of DOD 5220.22-M, "Industrial Security Manual for Safeguarding Classified Information").

(c) The above requirements shall not be construed as an application for an export license nor shall they in any way be interpreted to impede the Contractor's right to apply for an export license. However, if the CO disagrees with the application, the Contractor will be so notified.

(ASD FAR 52.204-9202)

[NOTE: This clause does not apply to work associated with Foreign Military Sales (FMS)]

H-010

MAXIMUM TOTAL ORDER

Total price of the supplies and services ordered under this contract shall not exceed the amount of \$45,000,000.00 for the basic contract.

H-011

IMPLEMENTATION OF FAR 52.219-9

The Contractor shall submit subcontracting plan goals in accordance with the provisions of "Small Business and Small Disadvantaged Business Subcontractors Plan #90 - 23", 13 Dec 90, Atch 4, SECTION J hereof only when the Government issues an individual delivery order whose value exceeds \$500,000.00 and (2) which offers subcontracting possibilities. When the delivery order value exceeds \$500,000.00, the Government Contracting Officer shall make a determination concerning the requirement for subcontracting plan submittal.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-013 CONTRACTOR PERSONNEL

a. The Contractor shall be responsible for selecting personnel who are well qualified to perform the required services, supervising techniques used in their work, and for keeping them informed of all improvements, change and methods of operation.

b. The Contractor shall select, supervise and exercise control and direction over its employees under this contract. The Contractor shall not supervise, direct or control the activities of Air Force personnel. Except as may be otherwise expressly specified herein, the Contractor shall provide all necessary administrative and other support to its employees.

H-014 COMSEC ACCESS

The Contractor is governed by DOD 5220.22S, COMSEC supplement to the Industrial Security Manual. Access to COMSEC material/information is restricted to U.S. citizens holding final U.S. Government clearances and is not releasable to personnel holding only a reciprocal clearance. Personnel requiring COMSEC access shall be briefed in accordance with DOD 5220-22S.

NOTE: The COMSEC/crypto briefing applies only to the use and control of crypto equipment and specialized COMSEC publications. NACSIM documents are not considered COMSEC controlled material.

H-015 CLASSIFIED ADP

TEMPEST requirements apply to all ADP equipment used to process classified information in accordance with contract Clause H-016.

H-016 TEMPEST REQUIREMENTS

(a) The Contractor shall ensure that compromising emanations (TEMPEST) conditions related to this contract are minimized. NACSIM 5100A, NACSEM 5201, NACSIM 5203, NACSEM 5204 and NACSI 5004 shall be used as guidelines to meet this requirement.

(b) Any one or combination of the following methods can be used to minimize compromising emanations.

1. Use TEMPEST certified equipment as identified on the Countermeasures Advisory Panel (CAP) Preferred Products List (PPL).

2. Operate classified processing equipment in a shielded enclosure designed to meet the requirements of NACSEM 5204, Appendix B, NSA Spec 65-6 or 72-3.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

3. Install classified processing equipment in accordance with NACSIM 5203, establish a physical control space based on emanation characteristics of the classified processors, or perform a facility TEMPEST test.

4. Use TEMPEST acceptable equipment installed in accordance with NACSIM 5203 (TEMPEST acceptable equipment are those which have been previously tested and have control space requirements of less than that provided in a particular facility).

(c) The Contractor shall identify to the Contracting Officer the following information and provide updates before changes are made. This information will be used for an assessment of the Contractor's facility to be performed in accordance with NACSI 5004.

1. SYSTEM DESCRIPTION:

(A) SYSTEM/FACILITY: Provide a brief title identifying the overall system or facility, e.g., Test Launch Facility, Command Post Word Processing System, Plans and Programs Interactive Graphics System.

(B) EQUIPMENT: List the manufacturer's make and model of each piece of equipment involved in classified processing.

(C) LOCATION: Identify the facility, building, and room number where the system or facility is located.

2. RESPONSIBLE PERSONNEL

(A) SECURITY OFFICER/MANAGER: Provide the name, office symbol, and telephone number of the responsible security manager.

3. OPERATIONAL RISK: (Contractors Facility)

(A) LEVEL/AMOUNT OF CLASSIFIED: Identify the levels of classification which will be processed as well as the estimated hours per month and percent of total material processed for each category.
NOTE: Only identify SECRET or higher classified processing.

(B) SENSITIVITY/PERISHABILITY: Identify any significant factors concerning the sensitivity and/or perishability of the classified data.

(C) FREQUENCY OF PROCESSING: Identify the classified processing schedule which will be used, e.g., scheduled, irregular, sporadic, cyclical, random. Assess the probability of the exact hours of classified use being pinpointed by unauthorized personnel. Describe any facts or circumstances that would make such determinations difficult.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

4. TECHNICAL RISK: (Contractor's Facility)

(A) PHYSICAL CONTROL SPACE (PCS): Identify the radius in meters of the physical control space available around the system/equipment/facility. Describe the barriers, doors, fences, walls, etc., that define the PCS. Describe the control exercised over the PCS during duty and non-duty hours. Describe other factors which contribute to control, such as visitor procedures, escort requirements, searches of personnel and/or vehicles, etc.

(B) PCS BREACHES: Identify the type and location relative to the system of any unfiltered telephone or communications lines, ungrounded or unfiltered power lines, conduits, heating and air conditioning ducts, water pipes, etc. that transgress the established PCS.

(C) BUILDING CONSTRUCTION: Describe the building in which the system is housed, e.g., concrete block walls, aluminum doors, no window.

(D) RED/BLACK INSTALLATION: Identify whether classified processors were installed in accordance with red/black criteria (i.e., installed in accordance with NACSIM 5203).

(E) SHIELDED ENCLOSURE: Identify whether classified processors are operated within an RF shielded enclosure.

5. CORRECTIVE ACTIONS: Describe the steps which have been or will be taken to eliminate the compromising emanations conditions. Provide target dates for completion.

(d) The prime contractor shall ensure that all subcontractors/vendors comply with TEMPEST requirements when performing classified processing related to this contract.

(e) Classified processing shall not be accomplished until specific written authorization is provided by the Contracting Officer.

(f) The prime contractor shall ensure that all subcontractors/vendors comply with TEMPEST requirements when performing classified processing related to this contract.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-017

MAINTENANCE (RADAR SIMULATOR USAGE HOURS (RSUH))

1. This contract shall include the maintenance (labor, spares, repairs, operating supplies, test equipment calibration, etc.) necessary to keep the various simulations ready for testing. The minimum level of maintenance required to provide basic services is established at \$500,000.00 at \$850.00 per usage unit for FY 91, \$527,289.00 at \$897.00 per usage unit for FY92, and \$556,248.00 at \$946.00 per usage unit for FY93. The usage unit is defined as the amount applicable to the simulator operation SubCLINs of the contract that the user pays for as maintenance. The usage unit is expressed as Radar Simulator Usage Hour (RSUH) units, the number of units per applicable SubCLIN as determined for this contract. The rate per usage hour is calculated based upon an expected usage of RSUH units for each period and is included in the test Delivery Orders by the inclusion of the appropriate number of units of SubCLIN 0001BM, Simulator Maintenance.

2. In the event testing usage is not sufficient to generate the minimum maintenance funds herein identified, a separate CLIN 0004 for FY91, FY92 and FY93 is established in Section B hereof. The maximum amount for these CLINs is FY91 \$500,000.00, FY92 \$527,289.00, FY93 \$556,248.00. For each usage hour under 588 per fiscal year, the Contractor shall be reimbursed at a rate of FY91, \$850.00, FY92, \$897.00, and FY93, \$946.00 up to the maximum amount shown above. The usage amount shall be reviewed annually not later than 31 August between the SPO and the contractor to determine the amount of shortage funding necessary for CLIN 0004 to maintain the minimum maintenance funding. Funds determined necessary, shall be allotted to the contract as close as possible to 1 Oct of the appropriate calendar year.

3. The contractor shall provide an accounting of the use of RSUH two months prior to the end of each fiscal year. This accounting shall include a prediction of the RSUH to be expended through the close of the fiscal year. This accounting shall be updated at the close of the fiscal year to document actual costs. Any RSUH not used by the close of the FY shall be used for the correction of chronic maintenance problems, purchase of spare parts, ECPs or credited to the next year's RSUH minimum, at the direction of the Government. However, all RSUH funds will be used for purposes other than deobligation.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

4. The following summary of RSUHs by SubCLIN is established:

<u>CLIN</u>	<u>TITLE</u>	<u>RSUH UNITS PER CLIN UNIT</u>
0001AA	SCENARIO PREPARATION	1
0001AF	DATA REDUCTION ANALYSIS	1
0001AJ	RADAR TYPE 1	4
0001AK	RADAR TYPE 2	4
0001AL	RADAR TYPE 3	16
0001AM	RADAR TYPE 4	16
0001AN	SEARCH RADAR INCREMENT	4
0001AP	HEIGHT FINDER INCREMENT	4
0001AQ	JAMMER TYPE 1	1
0001AR	JAMMER TYPE 2	2
0001AS	JAMMER TYPE 3	3
0001AT	JAMMER TYPE 4	4
0001AU	SYNTHETIC RADAR NETWORK TYPE 1	2
0001AV	SYNTHETIC RADAR NETWORK TYPE 2	2
0001AW	PULSE ENVIRONMENT GEN	8
0001AX	COMM SYSTEM TYPE 1	2
0001AY	COMM SYSTEM TYPE 2	4
0001AZ	COMM SYSTEM TYPE 3	4
0001BA	COMM SYSTEM TYPE 4	4
0001BB	COMMEG	8
0001BC	ICAD STATION UNIT TYPE 1	2
0001BD	ICAD STATION UNIT TYPE 2	4
0001BE	ICAD STATION UNIT TYPE 3	6
0001BF	ICAD STATION UNIT TYPE 4	8
0001BG	C3 NETWORK TYPE 1	4
0001BH	CS NETWORK TYPE 2	6
0001BJ	CS NETWORK TYPE 3	12
0001BK	SIMULATION PREP AND CHECKOUT	1
0001BL	CONFIG RESTORATION	1
0001BT	REDCAP COMPUTATION	8
0001BX	CONVEN RADAR CLUTTER	1
0001BY	SUAWACS CLUTTER	1
0001BZ	POINT CHAFF MODEL	1
0001CA	TERRAIN MASKING MODEL	1
0001CB	REACTIVE PENETRATOR MANUE	1
0001CC	REAC PEN JAMMING MODEL	1
0001CD	SEMI-AUTO TRACK AND VECTOR	1
0001CE	TERRAIN FOLLOW MODE 1	1
0001CF	TERRAIN FOLLOW MODE 2	1
0001CH	MODEL DEVELOP AND MODIFICATION	1
0001CJ	NON-STD MODEL EXECUTION	1
0002AD	DATA MEMO	1
0002AE	TEST REPORT	1

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-018 OPTION 1 (CLIN 0005)

The Government is hereby granted the option to extend the basic contract by one-year, as set forth in CLIN 0005, Section B hereof. The maximum amount which may be ordered in the option period shall not exceed \$15,000,000.00. The Contracting Officer may exercise this option by giving written notice to the Contractor to submit a technical and cost proposal for existing, new and deleted simulators, RSUH, data and FY94 rates. The Contracting Officer's written intent to exercise this option will be given to the Contractor on or before the 35th month of the basic contract award in accordance with FAR 52.217-7.

H-019 OPTION 2 (CLIN 0006)

The Government is hereby granted the option to extend the basic contract by one-year, as set forth in CLIN 0006, Section B hereof. The maximum amount which may be ordered in the option period shall not exceed \$15,000,000.00. The Contracting Officer may exercise this option by giving written notice to the Contractor to submit a technical and cost proposal for existing, new and deleted simulators, RSUH, data and FY95 rates. The Contracting Officer's written intent to exercise this option will be given to the Contractor on or before the 47th month of the basic contract award in accordance with FAR 52.217-7.

H-103 ACCELERATED DELIVERY

The Contractor is authorized to exceed the delivery rate, or to complete performance of this contract prior to the time set forth in the Schedule; provided, however, that nothing contained herein shall obligate the Government to perform any of its obligations to the Contractor at an earlier date than is set forth in the contract in order to assist the Contractor to make deliveries on an accelerated basis.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-104

RELEASE OF INFORMATION

(a) The Contractor shall not make public release of any information relating to all or any part of this contract without prior approval of the Office of Public Affairs, ASD/PA, Wright-Patterson AFB OH 45433-6503.

(b) For the purpose of this clause, "information" includes but is not limited to news releases, articles, manuscripts, brochures, advertisements, still and motion pictures, speeches, trade association meetings, symposia, published professional papers, etc.

(c) Twelve copies of any information to be released must be submitted to ASD/PA for security and policy review and clearance 45 days prior to release. Information copies will also be sent to the cognizant contracting officer and project engineer. Papers/presentations co-authored with an Air Force author may be submitted by either author.

(d) The Contractor agrees that in the release of information relating to this contract, such release shall include a statement to the effect that the project or effort depicted was or is sponsored by the agency set forth below:

Aeronautical Systems Division (AFSC)
Wright-Patterson AFB Ohio

(e) Nothing in the foregoing shall affect compliance with the requirements of the clause of this contract entitled "Security Requirements."

(f) The Contractor further agrees to include this clause in any subcontract awarded as a result of this contract.
(ASD/PM Policy Letter 89-055, 5 Sep 89)

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-250

GOVERNMENT FURNISHED PROPERTY

In accordance with the requirements of the "Government Property" clause, SECTION I hereof the Government shall furnish to the Contractor for use in the performance of this contract the following documents and/or data and/or other Government property listed below upon request:

(1) Foreign Technology Documents and/or information on Threat Systems.

(2) Data including computer software, necessary for the performance of this contract, not obtainable directly from the data owner, shall be supplied by the Government.

(3) All Government furnished property, acquired material and data in the possession of the Contractor which was accountable under the terms of Contract Numbers F33657-86-D-0146, F33657-83-C-0373, and F33657-88-C-2093 shall be transferred to and be accountable under the terms of this contract upon completion of Contract F33657-86-D-0146 and F33657-88-C-2093.

(4) Additional Government-owned property and/or Government furnished equipment provided to the Contractor during performance hereunder will be added to the above listed Government Furnished Property by an appropriate contract modification. Accountability/responsibility, therefore will be in accordance with the Government Property (Fixed Price) Clause of the General Provisions.

(5) Other Government owned/furnished equipment will be provided to the Contractor from time-to-time for use in performance of this contract, i.e. equipment made available from the Government prime and/or subcontractors or Governmental agencies for performance of the tests requested for the use of Government prime and/or subcontractors or Governmental agencies. Such other Government owned/furnished equipment is not therefore, subject to the accountability of the Government Property Clause. Jacket file accountability only will be established for control of this type of equipment by the Contractor. For purpose of this contract Jacket File accountability shall be deemed to mean "Jacket File accountability will be established for equipment being provided for test purposes only which will be returned to the owning activity upon completion of the test(s).

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-360

MODIFICATION OF DATA REQUIREMENTS

(a) From time to time during the performance of this contract, the Contracting Officer unilaterally may change the place of delivery and the technical office for any line item hereto, at no change in contract price, notwithstanding the provisions of the clause of SECTION I entitled "Changes".

(b) From time to time during the performance of this contract, the Contracting Officer unilaterally may increase or decrease the number of addresses and/or increase or decrease the number of copies (regular or reproducible) specified for any data item of the CDRL hereto, at no change in price provided that the increase in the total number of copies (regular or reproducible) for an individual line item of data shall not be greater than one hundred-fifty percent (150%) of the total number of copies (regular or reproducible) initially specified in the CDRL nor shall the decrease in the total number of copies (regular or reproducible) for an individual item of data be greater than fifty percent (50%) of the total number of copies (regular or reproducible) initially specified in the CDRL. In the event of an increase greater than such 150% or of a decrease greater than fifty percent (50%), the parties will negotiate any equitable adjustments in accordance with the procedures of the "Changes" clause.

(c) From time to time during the performance of this contract, the Contracting Officer unilaterally may make other administrative and clarification changes to the CDRL hereto, and the contract price will constitute full satisfaction of any entitlement of equitable adjustment under the "Changes" clause provided the Contractor agrees to accept such change at no change in contract price.

(d) Unilateral action pursuant to (a), (b), and (c) above shall be by the issuance of a Contracting Officer's letter or message which will reference this paragraph as its authority. Any change pursuant to (c) above which does impact the contract price shall not be acted upon by the Contractor but shall require notification of the estimated impact to the Contracting Officer.

(e) On a quarterly basis, the Contractor shall submit a proposed Contract Document Change Notice (CDCN) incorporating the Contracting Officer letters and messages issued pursuant to (a), (b) and (c) above for Air Force review and approval by contract modification.

SECTION I - CONTRACT CLAUSES

Contract clauses in this section from the FAR, DOD FAR Sup, Air Force FAR Sup, and Air Force Systems Command FAR Sup, are current through the following updates:

FAR: FAC 84-56; DOD FAR Sup: DAC 88-13; AF FAR Sup: Change 2;
AFSC FAR Sup: Change 7; AFACs thru 90-3

A. NOTICE: The following contract clauses pertinent to this SECTION are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION CLAUSES

52.202-1	DEFINITIONS (APR 1984)
52.203-1	OFFICIALS NOT TO BENEFIT (APR 1984)
52.203-3	GRATUITIES (APR 1984)
52.203-5	COVENANT AGAINST CONTINGENT FEES (APR 1984)
52.203-7	ANTI-KICKBACK PROCEDURES (OCT 1988)
52.203-8	REQUIREMENT FOR CERTIFICATE OF PROCUREMENT INTEGRITY (SEP 1990)
52.203-9	REQUIREMENT FOR CERTIFICATE OF PROCUREMENT INTEGRITY MODIFICATION (SEP 1990)
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (SEP 1990)
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JAN 1990)
52.204-2	SECURITY REQUIREMENTS (APR 1984)
52.209-6	PROTECTING THE GOVT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (MAY 1989)
52.212-8	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (MAY 1986)
52.215-1	EXAMINATION OF RECORDS BY COMPTROLLER GENERAL (APR 1984)
52.215-2	AUDIT - NEGOTIATION (DEC 1989)
52.215-22	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA (APR 1988)
52.215-24	SUBCONTRACTOR COST OR PRICING DATA (APR 1985)
52.215-26	INTEGRITY OF UNIT PRICES (APR 1987) ALTERNATE I (APR 1987)
52.215-27	TERMINATION OF DEFINED BENEFIT PENSION PLANS (SEP 1989)
52.215-30	FACILITIES CAPITAL COST OF MONEY (SEP 1987)
52.215-31	WAIVER OF FACILITIES CAPITAL COST OF MONEY (SEP 1987) (The above-referenced clause applies only if the Contractor <u>does not</u> propose facilities capital cost of money in its offer.)
52.215-33	ORDER OF PRECEDENCE (JAN 1986)
52.216-18	ORDERING (APR 1984) (The dates to be inserted in paragraph (a) of the above-referenced clause is "...from 1 Oct 90 through 30 Sep 93.")

SECTION I - CONTRACT CLAUSES (cont'd)

- 52.216-19 DELIVERY-ORDER LIMITATIONS (APR 1984)
(The information to be inserted in the above-referenced clause is as follows:
- In paragraph (a), insert "...less than \$660,473.00" as the minimum order.
- In paragraph (b)(1), insert "...in excess of \$45,000,000.00..."
- In paragraph (b)(2), insert "...in excess of \$45,000,000.00..."
- In paragraph (b)(3), insert "...within 30 days..."
- In paragraph (d), insert "...within 30 days..."
- 52.216-22 INDEFINITE QUANTITY (APR 1984)
(The date to be inserted in paragraph (d) of the above-referenced clause is "31 JAN 94".)
- 52.217-7 OPTION FOR INCREASED QUANTITY-SEPARATELY PRICED LINE ITEM (MAR 1989)
(The period of time to be inserted in the above-referenced clause in which the Contracting Officer has to exercise the option is 60 days.)
- 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL DISADVANTAGED BUSINESS CONCERNS (FEB 1990)
- 52.219-9 SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACTING PLAN (FEB 1990)
- 52.219-13 UTILIZATION OF WOMEN-OWNED SMALL BUSINESSES (AUG 1986)
- 52.219-16 LIQUIDATED DAMAGES - SMALL BUSINESS SUBCONTRACTING PLAN (AUG 1989)
- 52.220-3 UTILIZATION OF LABOR SURPLUS AREA CONCERNS (APR 1984)
- 52.220-4 LABOR SURPLUS AREA SUBCONTRACTING PROGRAM (APR 1984)
- 52.222-3 CONVICT LABOR (APR 1984)
- 52.222-26 EQUAL OPPORTUNITY (APR 1984)
- 52.222-28 EQUAL OPPORTUNITY PREAWARD CLEARANCE OF SUBCONTRACTS (APR 1984)
- 52.222-35 AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA VETERANS (APR 1984)
- 52.222-36 AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (APR 1984)
- 52.222-37 EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (JAN 1988)
- 52.223-2 CLEAN AIR AND WATER (APR 1984)
- 52.223-6 DRUG-FREE WORKPLACE (JUL 1990)
- 52.225-13 RESTRICTIONS ON CONTRACTING WITH SANCTIONED PERSONS (MAY 1989)
- 52.227-1 AUTHORIZATION AND CONSENT (APR 1984)
ALTERNATE I (APR 1984)
- 52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (APR 1984)
- 52.227-10 FILING OF PATENT APPLICATIONS -- CLASSIFIED SUBJECT MATTER (APR 1984)

SECTION I - CONTRACT CLAUSES (cont'd)

52.227-12 PATENT RIGHTS -- RETENTION BY THE CONTRACTOR (LONG FORM)
(JUN 1989)

52.228-5 INSURANCE - WORK ON A GOVERNMENT INSTALLATION (SEP 1989)

52.229-4 FEDERAL, STATE, AND LOCAL TAXES (NONCOMPETITIVE CONTRACT)
(APR 1984)

52.229-5 TAXES - CONTRACT PERFORMED IN U.S. POSSESSIONS OR PUERTO
RICO (APR 1984)

52.230-3 COST ACCOUNTING STANDARDS (SEP 1987)

52.230-4 ADMINISTRATION OF COST ACCOUNTING STANDARDS (SEP 1987)

52.232-2 ✓ PAYMENTS UNDER FIXED-PRICE RESEARCH AND DEVELOPMENT
CONTRACTS (APR 1984)

52.232-8 DISCOUNTS FOR PROMPT PAYMENT (APR 1989)

52.232-9 LIMITATIONS ON WITHHOLDING OF PAYMENTS (APR 1984)

52.232-11 EXTRAS (APR 1984)

52.232-16 PROGRESS PAYMENTS (AUG 1987)
ALTERNATE I (AUG 1987)

52.232-17 INTEREST (APR 1984)

52.232-19 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR (APR 1984)
The dates to be inserted are "...beyond 30 SEP 1991." in
both instances.

52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)
ALTERNATE I (APR 1984)

52.232-25 PROMPT PAYMENT (APR 1989)

52.232-28 ELECTRONIC FUNDS TRANSFER PAYMENT METHODS (APR 1989)

52.233-1 DISPUTES (APR 1984)

52.233-3 PROTEST AFTER AWARD (AUG 1989)

52.237-2 PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND
VEGETATION (APR 1984)

52.242-10 F.O.B. ORIGIN - GOVERNMENT BILLS OF LADING OR PREPAID
POSTAGE (APR 1984)

52.243-1 CHANGES - FIXED-PRICE (AUG 1987)
ALTERNATE V (APR 1984)

52.244-1 SUBCONTRACTS (FIXED-PRICE CONTRACTS) (JAN 1986)

52.244-5 COMPETITION IN SUBCONTRACTING (APR 1984)

52.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEC 1989)

52.245-18 SPECIAL TEST EQUIPMENT (AUG 1988)

2.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT
(FIXED-PRICE) (APR 1984)

52.249-9 DEFAULT (FIXED-PRICE RESEARCH AND DEVELOPMENT) (APR 1984)

SECTION I - CONTRACT CLAUSES (cont'd)

II. DEPARTMENT OF DEFENSE FAR SUPPLEMENT CLAUSES

252.203-7001 SPECIAL PROHIBITION ON EMPLOYMENT (MAR 1989)
252.203-7002 STATUTORY COMPENSATION PROHIBITIONS AND REPORTING
REQUIREMENTS RELATING TO CERTAIN FORMER DOD EMPLOYEES
(APR 1988)
252.203-7003 DISPLAY OF DOD HOTLINE POSTER (OCT 1987)
252.204-7005 OVERSEAS DISTRIBUTION OF DEFENSE SUBCONTRACTS (AUG 1988)
252.205-7000 RELEASE OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS
(FEB 1989)
252.209-7001 ACQUISITIONS FROM SUBCONTRACTORS SUBJECT TO ON-SITE
INSPECTION UNDER THE INTERMEDIATE-RANGE NUC.FORCES(INF)
TREATY (JAN 1990)
252.210-7004 BILL OF MATERIALS (APR 1955)
252.215-7000 AGGREGATE PRICING ADJUSTMENT (APR 1985)
252.215-7003 COST ESTIMATING SYSTEM REQUIREMENTS (JAN 1990)
252.219-7000 SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
SUBCONTRACTING PLAN (DOD CONTRACTS) (JUL 1990)
252.219-7009 INCENT. PROG. FOR SUBCONT. WITH SMALL & SMALL DISADV. BUS.
CONCERNS, HIST. BLACK COLL. & UNIV. & MINORITY INSTS.
(APR 1990)
252.225-7009 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (APR 1990)
252.225-7017 LIMITATION OF SALES COMMISSIONS AND FEES FOR FOREIGN
GOVERNMENTS (OCT 1980)
(The names of the foreign countries to be inserted at the
asterisks in the above-referenced clause are Israel,
Korea, Saudi Arabia, Sweden, and Switzerland.
252.225-7019 EXCLUSIONARY POLICIES AND PRACTICES OF FOREIGN GOVERNMENT
(JAN 1977)
252.225-7023 RESTRICTION ON ACQUISITION OF FOREIGN MACHINE TOOLS
(JUL 1990)
252.227-7013 RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE (OCT 1988)
252.227-7018 RESTRICTIVE MARKINGS ON TECHNICAL DATA (OCT 1988)
252.227-7026 DEFERRED DELIVERY OF TECHNICAL DATA OR COMPUTER SOFTWARE
(APR 1988)
252.227-7027 DEFERRED ORDERING OF TECHNICAL DATA OR COMPUTER SOFTWARE
(APR 1988)
252.227-7029 IDENTIFICATION OF TECHNICAL DATA (APR 1988)
252.227-7030 TECHNICAL DATA — WITHHOLDING OF PAYMENT (OCT 1988)
252.227-7031 DATA REQUIREMENTS (OCT 1988)
252.227-7036 CERTIFICATION OF TECHNICAL DATA CONFORMITY (MAY 1987)
252.227-7037 VALIDATION OF RESTRICTIVE MARKINGS ON TECHNICAL DATA
(APR 1988)
252.231-7000 SUPPLEMENTAL COST PRINCIPLES (APR 1984)
252.232-7003 PROGRESS PAYMENTS FOR FOREIGN MILITARY SALES ACQUISITIONS
(APR 1984)
252.233-7000 CERTIFICATION OF REQUESTS FOR ADJUSTMENT OR RELIEF
EXCEEDING \$100,000. (APR 1990)

SECTION I - CONTRACT CLAUSES (cont'd)

- 252.235-7004 FREQUENCY AUTHORIZATION (OCT 1966)
(Policy and procedures contained in AFR 700-14 will be followed to obtain frequency allocation approval of electromagnetic devices and USAF Radio Frequency Authorization (RFA). Frequency allocation proposals (DD Form 1494, Application for Frequency Allocation) and frequency assignments requirements shall be prepared by the Contractor in accordance with procedures outlined in AFR 700-14 and Attachment 5 thereto, the request for assignment shall be forwarded to the Aeronautical Systems Division (ASD/SCC), Wright-Patterson AFB, OH 45433-6503, with an information copy to the Contracting Officer.)
- 252.242-7001 MATERIAL MANAGEMENT AND ACCOUNTING SYSTEM REQUIREMENTS AND STANDARDS (MAY 1989)
- 252.242-7003 CERTIFICATION OF INDIRECT COSTS (APR 1986)
- 252.243-7000 ENGINEERING CHANGE PROPOSALS (AUG 1985)
- 252.243-7001 PRICING OF ADJUSTMENTS (APR 1984)
- 252.246-7001 WARRANTY OF DATA (NOV 1974)
- 252.271-7001 RECOVERY OF NONRECUR. COSTS ON COML. SALES OF DEF. PRODS. & TECHNOLOGY & OF ROYALTY FEES FOR USE OF DOD TECH. DATA (FEB 1989)

B. FAR Clauses in Full Text

- 52.204-1 APPROVAL OF CONTRACT (DEC 1989)

This contract is subject to the written approval of the official identified on Page 2 of this contract and shall not be binding until so approved.

- 52.220-1 PREFERENCE FOR LABOR SURPLUS AREA CONCERNS (APR 1984)

(a) This acquisition is not set aside for labor surplus area (LSA) concerns. However, the offeror's status as such a concern may affect (1) entitlement to award in case of tie offers or (2) offer evaluation in accordance with the Buy American Act clause of this solicitation. In order to determine whether the offeror is entitled to a preference under (1) or (2) above, the offeror must identify, below, the LSA in which the costs to be incurred on account of manufacturing or production (by the offeror or the first-tier subcontractors) amount to more than 50 percent of the contract price.

.....
.....

(b) Failure to identify the locations as specified above will preclude consideration of the offeror as an LSA concern. If the offeror is awarded a contract as an LSA concern and would not have otherwise qualified for award, the offeror shall perform the contract or cause the contract to be performed in accordance with the obligations of an LSA concern.

SECTION I - CONTRACT CLAUSES (cont'd)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

C. DOD FAR Sup Clauses in Full Text

252.247-7203 TRANSPORTATION OF SUPPLIES BY SEA (APR 1990)

(a) As used in this clause:

(1) "Armed services" means the Army, Navy, Air Force, Marine Corps, and Defense Agencies.

(2) "Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication or assembly by the Contractor or any subcontractor.

(3) "Foreign flag vessel" means any vessel that is not a U.S.-flag vessel.

(4) "Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

(5) "Subcontractor" means a supplier, materialman, distributor or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

(6) "Supplies" means all property, except land and interests in land, that is readily identifiable for eventual use by the armed services, or owned by the armed services, at the time of transportation by sea. It includes (but it not limited to) public works, buildings and facilities, ships, floating equipment and vessels of every character, type, and description, together with parts, subassemblies, accessories, and equipment; machine tools, material, equipment, and stores of all kinds; end items, construction materials and the components of the foregoing. An item is clearly identifiable for eventual use by the armed services if, for example, the contract documentation contains a reference to a DoD contract number, or a Military Specification, or a military destination.

(7) "U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

SECTION I - CONTRACT CLAUSES (cont'd)

(b) The Contractor shall employ United States-flag vessels, and no others, in the transportation by sea of any supplies to be furnished in the performance of its contractual obligations.

(c) If the Contractor or a subcontractor believes that (1) U.S.-flag vessels are not available for timely shipment; (2) the freight charges are excessive or unreasonable; or (3) freight charges are higher than charges to private persons for transportation of like goods, the Prime Contractor, including subcontractors through the Prime Contractor, may request from the Contracting Officer, in accordance with paragraph (d) below, authorization to ship in foreign-flag vessels or designation of available U.S.-flag vessels. If the Prime Contractor's request to ship supplies in foreign-flag vessels, whether on its own account or on account of a subcontractor, is granted in writing by the Contracting Officer, the supplies may be shipped on foreign-flag vessels in accordance with the approval. The Contracting Officer may condition approval to ship on a foreign-flag vessel on an equitable adjustment of the contract.

(d) The request for use of other than U.S.-flag vessels because of matters concerning freight charges or matters concerning vessel availability must be submitted in writing by or through the Prime Contractor to the Contracting Officer at least forty-five (45) days prior to the sailing date for the shipper to meet its delivery schedules. Requests submitted after such date(s) will be processed as expeditiously as possible, but the failure of the appropriate official to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. The request shall contain at a minimum:

- (1) Type, weight, and cube of cargo.
- (2) Required shipping date.
- (3) Special handling and discharge requirements.
- (4) Loading and discharge points.
- (5) Name of shipper and consignee.
- (6) Prime contract number.

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact with at least two (2) U.S.-flag carriers contacted by name and telephone number. Copies of telephone notes, telegraphic and facsimile messages or letters will be sufficient for this purpose.

(8) Certification, to the best of the certifying official's knowledge and belief, that the information provided under this paragraph (d) is accurate, complete and current as of the date of submission and that good faith efforts have been made to secure U.S.-flag transportation in a timely and efficient manner.

SECTION I - CONTRACT CLAUSES (cont'd)

(9) Signature of an official of the Contractor eligible to sign claim certification under FAR 33.207(c).

(e) The Contractor agrees to furnish with each invoice submitted for payment a copy of the rated on-board vessel operating carrier's ocean-bills-of-lading executed since the date of the award of the contract, or executed since the previously submitted invoice. The operating carrier's ocean-bills-of-lading shall contain the following information:

- (1) Applicable Government prime contract number;
- (2) Name of vessel;
- (3) Vessel flag of registry;
- (4) Date of loading;
- (5) Port of loading;
- (6) Port of final discharge;
- (7) Description of commodity;
- (8) Gross weight in pounds and cubic feet if available;
- (9) Total ocean freight in U.S. dollars.
- (10) Name of the steamship company.

(f) The Prime Contractor shall ensure that within thirty (30) days after each shipment covered by this clause the shipper shall provide the Contracting Officer and the Division of National Cargo, Office of Market Development, Maritime Administration, U.S. Department of Transportation, Washington, DC 20590, one copy of the shipping document cited in paragraph (e), reflecting each shipment made under the contract.

(g) Along with the submission of its final invoice under this contract the Contractor agrees to provide a representation that to the best of its knowledge and belief:

(1) No ocean transportation was used in the performance of this contract;

(2) Ocean transportation was used and only United States-flag vessels were used for all ocean shipments under the contract. Legible copies of rated on-board ocean-bills-of-lading or similar shipping documents have been submitted with the applicable invoices to the payment office, to the Contracting Officer and to the Maritime Administration in accordance with paragraphs (e) and (f) of this clause;

SECTION I - CONTRACT CLAUSES (cont'd)

(3) Ocean transportation was used, to the extent any non-U.S.-flag vessels were used, the Contractor had the written consent of the Contracting Officer for all non-U.S.-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. These shipments were as follows:

<u>ITEM</u> <u>DESCRIPTION</u>	<u>CONTRACT</u> <u>LINE ITEMS</u>	<u>QUANTITY</u>
Total		

(h) If the final invoice does not include the required representations and documentation, it will be rejected and returned to the Contractor as an improper invoice for the purposes of the clause of the contract entitled "Prompt Payment". In the event there has been unauthorized use of non-U.S.-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(i) The Contractor shall include this clause, including this paragraph (i), revised as necessary to reflect the relationship of the contracting parties, in all subcontracts hereunder.

D. AF FAR Sup Clauses in Full Text

52.204-9000 NOTIFICATION OF GOVERNMENT SECURITY ACTIVITY (SEP 1985)

Thirty days before the date Contractor operations will begin on base, the Contractor shall notify the security police activity shown in the distribution block of the DD Form 254, DOD Contract Security Classification Specification, as to--

(a) The name, address, and telephone number of this contract company's representative and designated alternate in the U.S. or oversea area, as appropriate;

(b) The contract number and military contracting command;

(c) The highest classification category of defense information to which Contractor employees will have access;

(d) The Air Force installations in the U.S. (in oversea areas identify only the APO number(s) where the contract work will be performed;

(e) The date Contractor operations will begin on base in the U.S. or in the oversea area;

(f) The estimated completion date of operations on base in the U.S. or in the oversea area; and

SECTION I - CONTRACT CLAUSES (cont'd)

(g) Any changes to information previously provided under this clause.

This requirement is in addition to visit request procedures contained in DoD 5220.22M, Industrial Security Manual, paragraph 37d.

52.204-9001 VISITOR GROUP SECURITY AGREEMENTS (JAN 1990)

Prior to beginning operations involving classified information on an installation identified on the DD Form 254 where the Contractor does not require a facility security clearance, the Contractor shall enter into a security agreement (or understanding) with the installation commander to ensure that its' security procedures are properly integrated with those of the installation. As a minimum, the agreement shall identify the security actions which will be performed --

(a) By the installation for the Contractor, such as providing storage and classified reproduction facilities, guard services, security forms, security inspections under DoD 5220.22-M, paragraph 5ag, classified mail services, security badges, visitor control and investigating security incidents; and

(b) Jointly by the Contractor and the installation, such as packaging and addressing classified transmittals, security checks, internal security controls, and implementing emergency procedures to protect classified materials.

52.223-9004 SAFETY AND ACCIDENT PREVENTION (APR 1984)

(a) In performing work under this contract on a Government installation, the Contractor shall--

(1) Conform to the specific safety requirements established by this contract;

(2) Comply with the safety rules of the Government installation that concern related activities not directly addressed in this contract;

(3) Take all reasonable steps and precautions to prevent accidents and preserve the life and health of Contractor and Government personnel performing or in any way coming in contact with the performance of this contract; and

(4) Take such additional immediate precautions as the Contracting Officer may reasonably require for safety and accident prevention purposes.

SECTION I - CONTRACT CLAUSES (cont'd)

(b) If this contract is performed on an Air Force installation, the Air Force Occupational Safety and Health Standards (AFOSH) developed in accordance with AFR 127-12, in effect on the date of this contract, apply. If contract performance is on other than an Air Force installation, the Contractor shall comply with the safety rules of that Government installation, in effect on the date of this contract.

(c) The Contracting Officer may, by written order, direct additional AFOSH and safety and accident standards as may be required in the performance of this contract and any adjustments resulting from such direction will be in accordance with the Changes clause of this contract.

(d) Any violation of these safety rules and requirements, unless promptly corrected as directed by the Contracting Officer, shall be grounds for termination of this contract in accordance with the Default clause of this contract.

52.235-9000 SCIENTIFIC/TECHNICAL INFORMATION (STINFO) (SEP 1985)

If not already registered, the Contractor shall register for Defense Technical Information Center (DTIC) service by contacting the following:

Defense Technical Information Center
ATTN: Registration Section (DTIC-DDR-B)
BLDG. 5, Cameron Station
Alexandria, Virginia 22304-6145
(202) 274-6871

To avoid duplication of effort and conserve scientific and technical resources, the Contractor shall search existing sources in DTIC to determine the current state-of-the-art concepts, studies, etc.

E. AFSC FAR Sup Clauses in Full Text

SECTION I - CONTRACT CLAUSES (cont'd)52.222-9000 EQUAL OPPORTUNITY PREAWARD CLEARANCE OF SUBCONTRACTS
(JUN 1990)

The prime Contractor shall request its preaward clearances through the Contracting Officer at least 30 calendar days before the proposed award date, unless the cognizant Department of Labor compliance office agrees to a shorter time.

52.243-9001 NOT-TO-EXCEED COST AGREEMENT (JUN 1990)

(a) Prior to the issuance of an undefinitized contractual action under this contract, the Contracting Officer may solicit from the Contractor written agreement as to (1) the monetary adjustment (maximum increase or minimum decrease) to be made to the contract or (2) adjustment in the delivery schedule (or time of performance) by reason of the action. The Contracting Officer may also solicit a definitization schedule for the action and limitations to the adjustments of any other provisions of the contract which may be subject to definitization. Any written agreement shall be cited in the undefinitized contractual action and shall be a binding part of the contract. In no event shall the definitive price exceed the established limitations.

(b) Unless a different time period is agreed to, the agreement contemplated by the clause shall result in a written offer by the Contractor which is irrevocable for sixty days. This applies to both Contractor and Government proposed changes. The specified dollar amount in the offer will constitute the maximum upward equitable adjustment in contract price for the change.

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

<u>DOCUMENT</u>	<u>TITLE AND DATE</u>	<u>NO. OF PAGES</u>
ATTACHMENT 1	Statement of Work 20 Sep 90	16
ATTACHMENT 2	Exhibit A (A001 - A016)	25
ATTACHMENT 3	Contract Security Classification Specification (DD 254), 30 Sep 89	11
ATTACHMENT 4	Small Business and Small Disadvantaged Business Subcontracting Plan 90 - 93, 13 Dec 90	10

STATEMENT OF WORK (SOW)
FOR REDCAP TEST, OPERATIONS, AND MAINTENANCE (TO&M)

20 Sep_90

1.0 Introduction

A continuing need exists for the Real-time Electromagnetic Digitally Controlled Analyzer and Processor (REDCAP) program which provides an assessment of effectiveness of equipment and techniques being used or developed by the Department of Defense (DOD) Electronic Combat (EC) programs and DOD approved Contractor EC programs. EC systems are evaluated through the use of these REDCAP simulators to provide a realistic effectiveness evaluation of the selected EC equipment.

2.0 Scope

The scope of this contract is limited to test and evaluation of Electronic Combat (EC) techniques and equipment on the REDCAP, maintenance of the REDCAP, threat and technology updates of the REDCAP, and configuration control of the REDCAP. This contract also includes government funded studies on EC or how to improve the REDCAP to be done by Calspan Corporation.

3.0 Government Furnished Equipment

The equipment/simulator to be used in the performance of the objectives of this Statement of Work (SOW) include Contractor Furnished Equipment (CFE) and Government Furnished Equipment (GFE). The equipment/simulators are located at the Calspan Advanced Technology Center, Buffalo NY.

4.0 Applicable Documents

All military standards and specifications which are referenced in the terms and conditions of the contract are applicable documents. Additionally, REDCAP Test, Operations and Maintenance (TO&M) is dependent upon a host of data which are in a continuous state of update or revision. As such, REDCAP TO&M depends upon this SOW, and the current/approved versions of the following documents: (a) Program Management Plan (PMP), (b) The REDCAP Configuration Management Plan (CMP), (c) REDCAP USERS MANUAL, (d) all approved simulator specification and operation manuals.

5.0 Tasks

The Contractor shall operate REDCAP simulator systems in the efficient conduct of test and evaluation of EC systems and techniques. The Contractor shall also effectively manage the REDCAP laboratory and support the Air Force's program office. The Contractor shall develop Test Implementation Plans (TIP); setup test equipment and simulations; conduct tests and

provide data outputs on evaluations, analyses, and studies as defined in the task descriptions. The Contractor shall maintain a test data base. The Contractor shall maintain an accountability tracking reporting system for the Radar Simulator Usage Hour (RSUH) account; modifications to REDCAP simulators; develop and modify STE; acquire replacement/repair parts for simulators and STE; perform continuous maintenance on simulators, STE, and laboratory test equipment. The Contractor shall provide for the addition of new simulators and STE to this contract as they become available from upgrade tasks/contracts. The Contractor shall provide for storage/retirement of old simulator systems. The elements and activities listed below must be ordered in integer values (called units) unless specifically indicated otherwise. Multiple units may be ordered when required.

5.1 DELETED

5.1.1 Test Preparation and Planning

5.1.1.1 Test/Study Implementation Plan

The test/study implementation plan shall be a management plan which identifies the scope, objectives and required resources to implement a test or study. It shall justify the use of multiple and/or fractional units. (DI-NDTI-80808/T)

5.1.1.1.1 Test Planning Requirement Identification

Requirement identification shall provide an engineer working 25% of his/her time for one month to generate and propose approaches and concepts for (1) testing proposed and/or existing EC equipment on the REDCAP, (2) making intelligence updates at the REDCAP, (3) modeling or otherwise determining REDCAP sensitivities, and/or (4) converting REDCAP results to mission terms. The engineer has the task of refining ideas and concepts into test, modeling and/or study approaches. The results of this effort are to be documented in a test/study implementation plan. (DI-NDTI-80808/T)

5.1.1.1.2 Test Plan

A test plan shall provide a complete description of test(s) to be conducted. Test planning units shall include all activities necessary to prepare for a test against a single radar site or communications/data link except for scenario generation. The test plan shall include, but is not limited to: (1) purpose, (2) scope, (3) objectives, (4) ECM descriptions, (5) scenarios, (6) threat parameters, (7) calibration procedures, (8) operator training procedures, (9) radar cross sections and antenna gains, (10) new and/or nonstandard simulator elements, (12) schedule and (13) responsible agencies and/or sources for new input data. (DI-NDTI-80808/T)

5.1.1.2 Scenario Preparation Unit

One scenario preparation unit shall provide one week of scenario development engineering effort by an analyst/programmer for the implementation of new scenarios. As a minimum, scenarios shall contain the following as applicable: (1) aircraft flight profiles, (2) penetrator aircraft performance and radar cross section (RCS) data, (3) interceptor aircraft performance and RCS data, (4) weapon/sensor performance, (5) threat radar parameters and antenna patterns, (6) synthetic radar parameters, (7) jammer parameters and antenna patterns, (8) command and

control communication/data link parameters, (9) terrain data and terrain masks, (10) signal environment and (11) simulator configuration.

5.1.1.3 Test Plan Supplemental Complexity Unit

Test plan supplemental units shall augment a test plan to provide an additional radar site or data link. (DI-NDTI-80808/T)

5.1.1.4 Test Plan Supplemental Networking Unit

Test plan supplemental networking units shall augment a test plan to permit one level of networking of radars and/or communications links. (DI-NDI-80808/T)

5.1.1.5 Test Plan Supplemental Radar Environment Unit

Test plan supplemental radar environment units shall augment a test plan to permit testing using the Pulse Environment Generator (PEG) to provide a multiple radar background environment. (DI-NDTI-80808/T)

5.1.1.6 Test Plan Supplemental Communication Environment Generator (COMMEG) Unit

Test plan supplemental COMMEG units shall augment a test plan to permit testing using the COMMEG background communications/data links. (DI-NDTI-80808/T)

5.1.2 Test Documentation

One or more test documents will be submitted for each test established by a test plan. One test reporting unit covers one week of one-on-one testing with a single type 1 jammer. More than one documentation unit may be used to cover multiple phase tests. Data reduction and analysis units may extend the contents of a report to tests more complex than one-on-one tests with a single type 1 jammer.

5.1.2.1 Data Memos

A data memo shall consist of detailed post-processed raw data results of a test. This data should be used only by a customer who is very familiar with both the REDCAP and the specific test. A data memo shall include but is not limited to the following: (1) start and end dates of the test, (2) pertinent test descriptions and (3) a sufficiently detailed description of the data to allow matching of test run and tracking information with specific items in the test plan. (DI-NDTI-80809/T)

5.1.2.2 Test Reports

A test report shall contain all results, analyses and evaluations of a test. A test report shall include, but is not limited to, the following: (1) relevant information from the test plan or test description as updated to reflect actual test conditions, (2) a summary of test results, analyses and conclusions including any operator's comments and qualitative insights that may assist the interpretation of the results, (3) a comparison of REDCAP parameters used versus Foreign Technology Division (FTD) threat estimates, (4) ordered data tables and (5) a data summary

table for all conditions for which statistical data were collected. Graphs shall include representative radar cross sections, antenna gains and J/S as functions of range and/or time to the extent applicable. (DI-NDTI-80604)

5.1.2.3 Data Reduction/Analysis Unit

A data reduction/analysis unit shall provide an experienced data reduction analyst/programmer for one week on tests more complex than a one-on-one test with a single type 1 jammer. This unit also provides for the construction of data bases for multiple run statistical analyses (e.g. analysis of variance (ANOVA), correlation). This unit also provides for the operation of models available as adjuncts to REDCAP. Model exercise results will be reported as specified in the test plan.

5.1.3 Study Reports

A study report shall be provided for each REDCAP related study. Multiple reports may be purchased by the Air Force when the studies have multiple phases. (DI-A-5029/T)

5.1.4 Briefing Support Unit

A briefing support unit shall consist of 10 hours of analyst support and 30 hours of artist, illustrator or graphic arts specialist support for preparation of briefing materials in support of a specific test or other REDCAP effort. (DI-A-3024A/T)

5.1.5 Scope Video Recording Unit

A scope video recording unit shall consist of raw video recording of one operator display as remotored to the test conductor's console for one week of testing. This unit includes no video editing, audio editing or dubbing. (DI-A-3010/M-106-1/T)

5.2 Testing and Associated Activities

5.2.1 Simulator Operations

REDCAP simulations shall be run in increments of one week (five days, eight hours per day) per unit. The addition of test direction, test management, REDCAP Computational Support and simulator maintenance units is required as appropriate for each test.

5.2.1.1 Radar Types

5.2.1.1.1 Radar Type 1

Radar type 1 is a single beam early warning (EW), ground controlled intercept (GCI), acquisition (ACQ) or height finder (HF) radar and includes RF sources, RF paths, receivers and displays.

5.2.1.1.2 Radar Type 2

Radar type 2 is a multiple beam (up to 4) EW/GCI/ACQ radar at up to four discrete frequencies and includes RF sources, RF paths, receivers and displays.

5.2.1.1.3 Radar Type 3

Radar type 3 is the SUAWACS radar simulation operating independently or in replay mode including RF sources, receivers, processing elements and displays. Operation with EC equipment requires the addition of Jammer Type 3 or 4 simulations. The replay mode is defined as operation controlled by a command file made during a previous simulation using Radar Type 4.

5.2.1.1.4 Radar Type 4

Radar type 4 consists of Radar Type 3 under the control of the REDCAP executive computer program (i.e. operating with the other REDCAP components). This simulation shall be capable of being combined with the other simulations in paragraphs 5.2.1.1 and 5.2.1.2.

5.2.1.2 Radar Increments

5.2.1.2.1 Search Radar Increment

A search radar increment adds a single beam search radar to a radar type in paragraph 5.2.1.1 and includes RF sources, paths, receivers and displays.

5.2.1.2.2 Height Finder Increment

A height finder increment adds a single beam height finder radar to a radar type in paragraph 5.2.1.1 and includes RF sources, paths, receivers and displays.

5.2.1.3 Jammer Types

5.2.1.3.1 Jammer Type 1

Jammer type 1 is a noise jammer (barrage, spot, swept or modulated) internal to the REDCAP and includes noise sources and paths.

5.2.1.3.2 Jammer Type 2

Jammer type 2 is a pseudorandom noise (PRN) jammer with up to four amplitude or frequency modulated sources and RF downpaths.

5.2.1.3.3 Jammer Type 3

Jammer type 3 provides four REDCAP RF downpaths for use with a GFE jammer. Appropriate engineering support and material support units will be used to support the GFE jammer.

5.2.1.3.4 Jammer Type 4

Jammer type 4 provides two RF up-paths and four RF downpaths for use with a GFE jammer. Appropriate engineering support and material support units will be used to support the GFE jammer.

5.2.1.3.5 DELETED

5.2.1.3.6 DELETED

5.2.1.4 Synthetic Radar Networks

A synthetic radar network shall provide a software representation of a group of EW, ACQ and/or terminal threat radars with their appropriate command and control, coordination and data communication links. The simulation shall include software representations of radar location characteristics, radar receiver performance and operator performance based on previously collected manned radar operations data base. Information shall be provided to the manned command/control elements in the same format as provided by manned radar simulators.

5.2.1.4.1 Synthetic Radar Network Type 1

A synthetic radar network type 1 shall provide a synthetic EW radar network of up to 256 radars.

5.2.1.4.2 Synthetic Radar Network Type 2

A synthetic radar network type 2 shall provide a synthetic EW radar network of up to 256 radars and provides a reaction of the synthetic radar network to the computer controlled parameters of a GFE jammer.

5.2.1.5 Pulse Environment Generator (PEG) Unit

A PEG unit shall provide use of the REDCAP PEG to simulate up to 256 radars including the scan and pulse repetition interval (PRI) modulations for single and multiple beam search, height finder, AWACS, conical scan, track while scan (TWS) and steady illumination systems.

5.2.1.6 Communications Systems

5.2.1.6.1 Communications System Type 1

A communications system type 1 shall provide an audio communications (intercom) simulation of up to four stations.

5.2.1.6.2 Communications System Type 2

A communications system type 2 shall provide a UHF voice simulation of up to four frequencies for GCI - interceptor communications including simulated transmitters, RF paths, receivers and headsets.

5.2.1.6.3 Communications System Type 3

A communications system type 3 shall provide a UHF and/or VHF digital data link simulation of up to three ground to air data links including encoders, decoders, transmissions, RF paths and receivers.

5.2.1.6.4 Communications System Type 4

A communications system type 4 shall provide a Communications System Type 2 or 3 for off-line communications jamming technique development.

5.2.1.7 Communications Environment Generator (COMMEG) Unit

A COMMEG unit shall provide an RF environment of up to 48 communications emitters for testing integrated communications and jamming systems. Modulation types include AM and FM as well as TV and data link emissions.

5.2.1.8 Interceptor Control and Display Station (ICAD) Unit

An ICAD unit shall provide ICAD(s) and the appropriate software to control interceptor and penetrator flight dynamics. This includes software models of the radar acquisition and tracking process, the infrared sensor acquisition and control process, and/or the visual detection process.

5.2.1.8.1 ICAD Station Unit Type 1

An ICAD station unit type 1 shall provide one ICAD station for one week.

5.2.1.8.2 ICAD Station Unit Type 2

An ICAD station unit type 2 shall provide two ICAD stations for one week.

5.2.1.8.3 ICAD Station Unit Type 3

An ICAD station unit type 3 shall provide three ICAD stations for one week.

5.2.1.8.4 ICAD Station Unit Type 4

An ICAD station unit type 4 shall provide four ICAD stations for one week.

5.2.1.9 Command, Control and Communications (C3) Increments

5.2.1.9.1 C3 Network Type 1

A C3 network type 1 shall add a one sector level filter center with one plan/position display, alphanumeric displays and a plot board.

5.2.1.9.2 C3 Network Type 2

A C3 network type 2 shall add a one sector level filter center with one plan/position display, alphanumeric displays, plot board, one vectoring computer simulation and two penetrator-interceptor tracking stations.

5.2.1.9.3 C3 Network Type 3

A C3 network type 3 shall add three filter centers with plan/position displays, alphanumeric displays, plot boards, four vectoring computer simulations and two penetrator-interceptor tracking stations.

5.2.2 Simulator Preparation, Calibration and Reconfiguration

5.2.2.1 Simulator Preparation and Checkout Procedures

The contractor shall setup (prepare) and checkout the simulator to be used for test. This includes adjustments, calibrations and measurements necessary to assure the simulator is ready prior to testing. A simulator preparation unit shall provide one week of engineering support to perform the aforementioned tasks. REDCAP management units are required to supervise the efforts performed under this line item.

5.2.2.2 Configuration Restoration

A configuration restoration unit shall provide the engineering and support efforts required to return a simulation to its standard configuration after a test in which a temporary deviation has been made. REDCAP management units are required to supervise the efforts performed under this line item.

5.2.2.3 Simulator Maintenance

A simulator maintenance unit shall provide one unit towards the RSUH maintenance account for the maintenance necessary to keep the various simulators ready for testing. Simulator maintenance units will be applied to each test in which REDCAP elements are used. The number of simulator maintenance units which will be charged per REDCAP unit are as follows:

Scenario Preparation	1.0
Data Reduction/Analysis	1.0
Radar Type 1	4.0
Radar Type 2	4.0
Radar Type 3	16.0
Radar Type 4	16.0
Search Radar Increments	4.0
Height Finder Increments	4.0
Jammer Type 1	1.0

Jammer Type 2	2.0
Jammer Type 3	3.0
Jammer Type 4	4.0
Syn Radar Net 1	2.0
Syn Radar Net 2	2.0
PEG	8.0
Comm System 1	2.0
Comm System 2	4.0
Comm System 3	4.0
Comm System 4	4.0
COMMEG	8.0
ICAD Type 1	2.0
ICAD Type 2	4.0
ICAD Type 3	6.0
ICAD Type 4	8.0
C3 Network Type 1	4.0
C3 Network Type 2	6.0
C3 Network Type 3	12.0
Simulator Prep and Checkout	1.0
Config Restoration	1.0
REDCAP Computation	8.0
Conven Radar Clutter	1.0
SUAWACS Clutter	1.0
Point Chaff Model	1.0
Terrain Masking Model	1.0
Reactive Penetrator Manue	1.0
Reac Pen Jamming Model	1.0
Semi-Auto Track & Vector	1.0
Terrain Follow Mode 1	1.0
Terrain Follow Mode 2	1.0
Model Develop & Modification	1.0
Non-Std Model Execution	1.0
Data Memo	1.0
Test Report	1.0

5.2.3 Test Support

5.2.3.1 Test Management

A test management unit shall provide one week of REDCAP facility management. A test management unit will be purchased for each week (five working days) of simulator preparation, operation and maintenance.

5.2.3.2 Test Direction

A test direction unit shall provide an experienced, senior level REDCAP test director for one week of simulator operation.

5.2.3.3 Operator Training

An operator training unit shall provide an instructor for one week to teach test subjects (operators, etc.) any specialized skills required for a specific test.

5.2.3.4 Operator Briefing/Debriefing

An operator briefing/debriefing unit shall provide one week of support to brief and debrief operator during a test. The intent of this unit is to obtain qualitative insights to operator responses.

5.2.3.5 Operator Support

An operator support unit shall provide an operator supporting a manned position for one week.

5.2.3.6 REDCAP Computational Support

A REDCAP computational support unit shall provide the Calspan REDCAP IBM 3031 computer system for one week of simulator operation. This unit is required for each week of operation of simulator equipment which requires the IBM computer.

5.2.3.7 Engineering Support

5.2.3.7.1 Engineering Support A

One unit of engineering support A provides a senior level engineer, analyst or programmer for one week to perform specific tasks such as intelligence analysis and liaison.

5.2.3.7.2 Engineering Support B

One unit of engineering support B provides an intermediate level engineer, analyst or programmer for one week to perform specific tasks such as updating threat libraries.

5.2.3.7.3 Engineering Support C

One unit of engineering support C provides a junior level engineer, analyst or programmer for one week to perform specific tasks, usually in support of type A and/or B personnel.

5.3 Modeling and Associated Activities

5.3.1 Standard REDCAP Models

5.3.1.1 DELETED

5.3.1.2 DELETED

5.3.1.3 Clutter Models

5.3.1.3.1 Conventional Radar Clutter

A conventional radar clutter model consists of simulated clutter returns for a single conventional radar site from clutter information provided by the user.

5.3.1.3.2 SUAWACS Clutter

A SUAWACS radar clutter model consists of simulated clutter returns for the SUAWACS simulator for a single SUAWACS flight profile from terrain information provided by the user.

5.3.1.4 Point Chaff Model

A point chaff model provides up to 100 simulated bundles of chaff from one or more targets as seen by one or more radars.

5.3.1.5 Terrain Masking Model

A terrain masking model provides a single multi-valued terrain mask about a single radar site from Air Force supplied topographic data.

5.3.1.6 Reactive Penetrator Models

5.3.1.6.1 Reactive Penetrator Maneuvers

A reactive penetrator maneuver model provides a specific set of reactive maneuvers by a penetrator in response to a specific set of warning cues supplied by the Air Force or derived from the model. Different reactive maneuvers to different cues require multiple units.

5.3.1.6.2 Reactive Penetrator Jamming Model

A reactive penetrator jamming model provides reactive jamming response for a single penetrator based upon a single control parameter of the observed threat. Multiple units are required for multiple penetrators and/or multiple control parameters.

5.3.1.7 Semiautomatic Tracking and Vectoring

A semiautomatic tracking and vectoring unit provides semiautomatic penetrator and interceptor tracking for a single pair and for a single semiautomatic vectoring computer for one GCI threat radar.

5.3.1.8 Automatic Terrain Following Flight Model

An automatic terrain following flight model combines simulated terrain flight data and USAF furnished topographic data to determine the terrain following flight profile.

5.3.1.8.1 Terrain Following Mode 1

Terrain following mode 1 consists of a nonreactive penetrator flying over a single ground path.

5.3.1.8.2 Terrain Following Mode 2

Terrain following mode 2 consists of a single on-line penetrator.

5.3.1.9 Model Input Data Collection

A model input data collection unit provides one week of information gathering for models which normally require user supplied data.

5.3.2 Model Development and Modification

A model development and modification unit provides one week of development and/or modification of a model. The model must be directly related to REDCAP testing or the interpretation of REDCAP test results. The most common developments and modifications occur in generic real-time interactive data (GRID) models. GRID models are used to synthesize the response of radars or networks based on the results of previous tests.

5.3.3 Non-Standard Model Execution

A non-standard model execution unit provides one week of execution of a computer model for one week. This unit may only be used to execute models applicable to running REDCAP, interpreting REDCAP results and/or preparing for a future REDCAP test in which manned testing is intended.

5.4 Evaluation Material Support

The Contractor shall provide special purpose items specifically required for a REDCAP evaluation. Each evaluation material support unit shall provide \$100.00 unburdened direct cost. Technology updates will normally use evaluation material support and maintenance units.

5.5 Studies

REDCAP studies shall be directly applicable to testing on the REDCAP or providing upgrades to the REDCAP. Examples include establishing the feasibility of running a test, correlating REDCAP test results with those of another facility, investigating the applicability of other simulations and models to the REDCAP and investigating methods of improving the REDCAP availability.

5.5.1 REDCAP Study Unit

For each REDCAP study unit the Contractor shall provide one week of engineering analysis and appropriate levels of secretarial and management support.

5.5.2 REDCAP Study Review Unit

For each REDCAP Study review unit the Contractor shall conduct a one day review to brief the Air Force on the criteria and results of a REDCAP study. Multiple units may be used for longer reviews. The Contractor shall provide an agenda, presentation material and minutes from the review. (DI-A-3024A/T, DI-A-7088, DI-A-7089)

5.6 Configuration/Data Management

5.6.1 REDCAP Configuration Management Plan

The contractor shall implement the approved REDCAP Simulator Facility Configuration Management Plan (developed under contract F33657-88-C-2093), as upgraded equipment is delivered to this Contract. The provisions of the Configuration Management Plan for Contract F33657-83-C-0373 are applicable to the existing baselines and configuration items for the operational SUAWACS simulator.

5.6.1.1 Configuration Management

Configuration management procedures shall be established in accordance with MIL-STD-480B, MIL-STD-483A, MIL-STD-490A, and DOD-STD-2167A (paragraphs 4.1.6 and 4.5). The Contractor shall ensure that the necessary configuration management requirements of this SOW are applied to all subcontractors.

5.6.1.1.1 Baselines

Configuration identification constitutes a baseline only when formally designated (authenticated) and contractually established as a basis for formal change control. Functional, allocated and product baselines, or their current approved configuration identification should be mutually consistent and compatible. Unless waived by the Government, the order of precedence shall be: (1) functional, (2) allocated, and (3) product. Configuration identification requirements should be traceable to the top-level specification.

5.6.1.1.2 Configuration Control

Engineering changes affecting an established baseline shall be accomplished in accordance with MIL-STD-480B as supplemented by MIL-STD-483A, Appendix XIII, when applicable. The engineering change preparation cost(s) of ECPs, if any, shall be part of the overall cost of the ECP(s). For disapproved ECPs, preparation cost shall be part of the Contractor's sustaining engineering support. (DI-CMAN-80639/T)

5.6.1.1.3 Specification Authentication and Maintenance

The requirements of MIL-STD-490A, paragraph 3.3, MIL-STD-483A, paragraphs 3.4.9 and 3.5, and MIL-STD-480B, paragraph 5.6 and appendix E, are applicable. The Contractor shall submit proposed changes in accordance with the CDRL for Government review and approval prior to specification authentication. (DI-CMAN-80643)

5.6.1.1.4 Documentation Configuration Control

The Contractor shall conform with the provisions of MIL-STD-483A, Appendix X, and DOD-STD-2167A, paragraph 4.5.2. The Contractor is responsible for maintaining configuration control of the various simulator configurations and changes thereto required for testing, including temporary changes and operational support. Documentation changes are subject to Government review and approval as required by the CDRL.

5.6.1.2 Configuration Status Accounting

The Contractor shall establish and maintain a Configuration Status Accounting System using his formats and procedures. The system shall:

- a. Identify simulators/equipment and the configuration items.
- b. Identify the technical documentation comprising the configuration identification.
- c. Identify proposed changes to configuration, the status of such changes, and responsibility for change decisions.
- d. Identify temporary variations to the baseline configuration and their status.

The Contractor shall establish an internal verification system that insures that all approved changes are incorporated into the hardware, software, and associated configuration identification.

5.7 Travel

Each travel unit includes commercial travel, lodging, per diem and rental car fees for one person for the duration of his trip as directed by the Air Force to support the REDCAP.

5.7.1 Trip Type 1

A trip type 1 is a one person, one day trip to locations within an 800 kilometer radius of Buffalo, NY. (e.g. Dayton, OH or Washington, DC)

5.7.2 Trip Type 2

A trip type 2 is a one person, two day trip to locations within a 2500 kilometer radius of Buffalo, NY. (e.g. Eglin AFB, FL or AFEWES, Ft Worth, TX)

5.7.3 Trip Type 3

A trip type 3 is a one person, three day trip to locations greater than 2500 kilometers from Buffalo, NY and within the continental United States (CONUS). (e.g. Los Angeles, CA)

5.7.4 Trip Type 4

A trip type 4 consists of a one person, seven day trip to Europe (NATO and US allied nations).

5.7.5 Trip Type 5

A trip type 5 consists of a one person, seven day trip to Asia (US allied nations).

5.8 Method of Approach

Each evaluation or study shall consist of four events. The first event is implementation planning. During implementation planning the amount of resources necessary to conduct a test are determined. The product of this effort is a test/study implementation plan. The second event is test planning. Test planning defines in detail the method of evaluating an EC hypothesis. The product of this effort is a test plan. The equivalent of a test plan may be determined inappropriate for a particular study. The third event is test conduct. Test conduct will be accomplished IAW the test plan except in cases where engineering judgement determines it to be inappropriate. Deviations from the test plan must be coordinated with the Air Force. For study efforts the third event is the conduct of the study. The fourth event is reporting. Test and study reports should outline the purpose of the effort, document the work performed and present reduced data and any conclusions which could be drawn from the effort.

6.0 Data Item

The Government may task the Contractor to correct data deficiencies at no additional cost to the Government.

6.1 Data Accession List/Internal Data

The Contractor shall maintain a complete list of all internal data and computer programs generated by the Contractor as a result of this contract. The data shall be listed by identification number, title, and date. All data not required by the CDRL shall be considered as the Contractor's format and schedule, and shall be listed on the Data Accession List/Internal Data. The Contractor shall furnish copies of data from this list to the Government on an "as required" basis when ordered by the PCO. The cost of providing such data shall be included as part of this basic contract, and no other charges shall be made by the Contractor for such services. The Data Accession List/Internal Data shall include all data prepared under contract F33657-86-D-0146. (DI-A-3027A)

7.0 Program Management

The Contractor shall designate a Program Manager responsible for the REDCAP TO&M program. The Program Manager shall direct the Contractor's effort through a management system which shall provide program visibility on the status of achieving schedule and performance objectives. The management system shall provide identification of all work to be accomplished, schedule and the responsible organization.

7.1 Individual Simulator History

The Contractor shall maintain a record on each simulation which indicates the simulation's past test history (beginning with the first test on each simulation under this contractual effort). As a minimum, the history will contain (for each test) number of weeks to set up each test, a description of maintenance problems encountered, total number of test runs accomplished, average duration of runs, number of shifts weeks for the test and any appropriate general comments which may include user suggestions on simulation operational improvements. (DI-A-3027A)

7.2 Pricing

Pricing shall be done on a test by test basis. This shall be based on negotiated rates resulting from Contractor Proposal.

8.0 Spare Parts List

The Contractor shall maintain the combined recommended spare parts list for all active simulators under the TO&M contract. This list is to be delivered under contract F33657-88-C-2093. (DI-ILSS-80134)

06-14-90
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CONTRACTOR DATA MANAGEMENT SYSTEM
CONTRACT DATA REQUIREMENTS LIST
TABLE OF CONTENTS

SUBSIST NAME: REDO&M
PROGRAM ID: RWB

CONTRACT NO: F33657-90-D-2100/
CONTRACTOR: CALSPAN

SYSTEM ITEM CODE: REDO&M

SEQ NO	OPR	DID NO/TITLE/SUBTITLE	SOW PARA GRAPH
A001	ASD/RWWS	DI-A-3010/M-106-1/T MOTION PICTURE FILM CLIPS	SOW 5.1.5
A002	ASD/RWWS	DI-A-3024A/T PRESENTATION MATERIAL	SOW PARA 5.5.1, 5.1.4
A003	ASD/RWWS	DI-A-3027A DATA ACCESSION LIST/INTERNAL DATA	SOW PARA 6.1, 7.1
A004	ASD/RWCC	DELETED DELETED	
A005	ASD/RWWS	DI-A-5029/T TECHNICAL REPORT	SOW PARA 5.1.3
A006	ASD/RWWS	DI-A-7088 CONFERENCE AGENDA	SOW PARA 5.5.2
A007	ASD/RWWS	DI-A-7089 CONFERENCE MINUTES	SOW PARA 5.5.3
A008	ASD/RWWS	DI-ILSS-80134 RECOMMENDED SPARE PARTS LIST	SOW PARA 8.0
A009		DELETED DELETED	
A010	ASD/RWWS	DI-NDTI-80604 TEST REPORT	SOW PARA 5.1.2.2
A011	ASD/RWCC	DI-CMAN-80639/T ENGINEERING CHANGE PROPOSAL	SOW PARA 5.6.1.1.2
A012	ASD/RWCC	DI-CMAN-80643 SPECIFICATION CHANGE NOTICE (SCN)	SOW PARA 5.6.1.1.3
A013		DELETED DELETED	
A014	ASD/RWWS	DI-NDTI-80808/T TEST PLANS/PROCEDURES IMPLEMENTATION PLAN	SOW PARA 5.1.1.1, 5.1.1.1.1
A015	ASD/RWWS	DI-NDTI-80808/T TEST PLANS/PROCEDURES TEST PLAN	BLK16
A016	ASD/RWWS	DI-NDTI-80809/T TEST REPORTS	SOW PARA 5.1.2.1

MAILING LIST FOR CONTRACT F33657-90-D-2100

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AERONAUTICAL SYSTEMS DIVISION
WRIGHT-PATTERSON AFB, OH 45433-6503

FOREIGN TECHNOLOGY DIVISION
WRIGHT-PATTERSON AFB, OH 45433-6503

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FORT WORTH, TX 76101-0371

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| Critical Technology | To protect information and technical data that advances current technology or describe new technology in an area of significant or potentially significant military application or that relates to a specific military deficiency of a potential adversary. |
| Administrative or Operational Use | Same as distribution statement B. |
| Specific Authority | Same as distribution statement B. |

4. DISTRIBUTION STATEMENT D. Distribution authorized to the Department of Defense and DoD contractors only (fill in reason) (date of determination). Other requests shall be referred to (insert controlling DoD office).

a. May be used on unclassified technical documents or on classified technical documents, if necessary, to ensure distribution limitation in addition to need-to-know requirements imposed by DoD 5200.1-R (reference (h)) or in the event the document is declassified.

b. Reasons for assigning distribution statement D include:

- | | |
|---------------------------|---|
| Procurement Dissemination | To protect information on systems or hardware in the developmental or concept stage to prevent procurement dissemination. |
| Software Documentation | Same as distribution statement B. |
| Critical Technology | Same as distribution statement C. |
| Specific Authority | Same as distribution statement B. |

5. DISTRIBUTION STATEMENT E. Distribution authorized to DoD Components only (fill in reason) (date of determination). Other requests shall be referred to (insert controlling DoD office).

a. May be used on unclassified technical documents or on classified technical documents, if necessary, to ensure distribution limitation in addition to need-to-know requirements imposed by DoD 5200.1-R (reference (i)) or in the event the document is declassified.

b. Reasons for assigning distribution statement E include:

- | | |
|-------------------|--|
| Expert Limitation | Document contains expert-controlled technical data which has been designated by competent authority in accordance with DoD Directive 5230.25 (reference (f)) to be of such significance for military purposes that release for purposes other than direct support of DoD approved activities may jeopardize an important technological or operational military advantage of the United States. |
|-------------------|--|

<u>Foreign-Government Information</u>	Same as distribution statement B.
<u>Structure Dissemination</u>	Same as distribution statement D.
<u>Software Documentation</u>	Same as distribution statement B.
<u>Critical Technology</u>	Same as distribution statement C.
<u>Specific Authority</u>	Same as distribution statement B.

6. DISTRIBUTION STATEMENT F. Further dissemination only as directed by (inserting controlling DoD office) (date of determination) or higher DoD authority.

a. Normally used only on classified technical documents, but may be used on unclassified technical documents when specific authority exists.

b. Distribution statement F is used when the DoD originator determines that information is subject to special dissemination limitation specified by paragraphs 4-505, DoD 5200.1-R (reference (h)).

c. When a classified document assigned distribution statement F is declassified, the statement shall be retained until the controlling DoD office assigns the proper distribution statement from this Directive.

7. DISTRIBUTION STATEMENT X. Distribution authorized to U.S. Government agencies and private individuals or enterprises eligible to obtain export-controlled technical data in accordance with regulations implementing 10 U.S.C. 140c (date of determination). Other requests must be referred to (insert controlling DoD office).

a. This statement shall be used on unclassified documents when distribution statements B, C, D, E or F are not applicable, but the document does contain technical data as explained in DoD Directive 5230.25 (reference (f)).

b. This statement shall not be used on classified technical documents; however, it may be assigned to technical documents that formerly were classified.

8. ADDITIONAL NOTICES. In addition to the distribution statement, the following notices will be used when appropriate:

a. All technical documents that are determined to contain export-controlled technical data will be marked "WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751 et seq.) or Executive Order 12870. Violation of these export laws are subject to severe criminal penalties."

b. All technical documents marked with distribution statements B, C, D, E, F, or X will also be marked "DESTRUCTION NOTICE - For classified documents, follow the procedures in DoD 5200.22-H, Industrial Security Manual, Section II-19 or DoD 5200.1-R, Information Security Program Regulation, Chapter IX. For unclassified, limited documents, destroy by any method that will prevent disclosure of contents or reconstruction of the document."

DEFINITIONS

1. Contractor. An individual or organization outside the U.S. Government who has accepted any type of agreement or order to provide research, supplies, or services to a U.S. Government agency including both prime contractors and subcontractors.

a. Qualified U.S. Contractor. In accordance with DoD Directive 5230.25 (reference (f)), a private individual or enterprise located in the United States whose eligibility to obtain export-controlled technical data has been established under procedures developed by the Under Secretary of Defense for Research and Engineering.

b. DoD Potential Contractor. An individual or organization outside the Department of Defense declares eligible for DoD information services by a sponsoring DoD activity on the basis of participation in one of the following programs:

(1) The Department of the Army Qualitative Requirements Information Program.

(2) The Department of the Navy Industry Cooperative Research and Development Program.

(3) The Department of the Air Force Potential Contractor Program.

(4) The DoD Scientific and Technical Information Program, or

(5) Any similar program in use by other DoD Components.

2. Controlling DoD Office. The DoD activity that sponsored the work that generated the technical data or received the technical data on behalf of the Department of Defense and therefore, has the responsibility for determining the distribution of a document containing such technical data. In the case of joint sponsorship, the controlling office is determined by advance agreement and may be either a party, group, or committee representing the interested activities or DoD components.

3. Critical Technology. Technology that consists of:

(a) Arrays of design and manufacturing know-how (including technical data).

(b) Keystone manufacturing, inspection, and test equipment.

(c) Keystone materials.

(d) Goods accompanied by sophisticated operation, application, or maintenance know-how that would make a significant contribution to the military potential of any country or combination of countries and that may prove detrimental to the security of the United States (also referred to as militarily critical technology).

4. Distribution Statement. A statement used in marking a technical document to denote the extent of its availability for distribution, release, and disclosure without additional approvals or authorizations. A distribution statement marking is distinct from and in addition to a security classification marking assigned in accordance with DoD 5200.1-R (reference (h)).

5. Document. Any recorded information regardless of its medium, physical form, or characteristics.

6. Foreign Government Information.

a. Information that is:

(1) Provided to the United States by a foreign government or governments, an international organization of governments, or any element thereof with the expectation either expressed or implied, that the information or the source of information, or both be held in confidence.

(2) Produced by the United States following or as a result of a joint arrangement with a foreign government or governments or an international organization of governments or any element thereof, requiring that the information or the arrangement or both be held in confidence.

b. Information described in subparagraphs 6(a)(1) and (2) above and in the possession of the Department of Defense is classified information in accordance with DoD 5200.1-R (reference (h)).

7. Primary Distribution. The initial targeted distribution of or access to technical documents authorized by the controlling DoD office.

8. Scientific and Technical Information. Communicable knowledge or information resulting from or pertaining to conducting and managing a scientific or engineering research effort.

9. Secondary Distribution. Release of technical documents provided after primary distribution. It includes loaning, allowing the reading of, or releasing a document outright, in whole or in part.

10. Technical Data. Recorded information related to experimental, developmental, or engineering works that can be used to define an engineering or manufacturing process or to design, procure, produce, support, maintain, operate, repair, or overhaul material. The data may be graphic or pictorial delineations in media such as drawings or photographs, text in specifications or related performance or design type documents, or computer printouts. Examples of technical data include research and engineering data, engineering drawings, and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog-item identifications, and related information and computer software documentation.

11. Technical Document. Any recorded information that conveys scientific and technical information or technical data.

12. Technical Information. Information, including scientific information, that relates to research, development, engineering, test, evaluation, production, operation, use, and maintenance of munitions and other military supplies and equipment.

ATCH NR:	TO EXHIBIT: A	CONTRACT DATA REQUIREMENTS LIST	SYSTEM ITEM: REDCAP TO&M
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TO CONTRACT/PR: F33657-90-D-2100	CATEGORY: A	CONTRACTOR: CALSPAN
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1) SEQ NO A001	2) TITLE OR DESCRIPTION OF DATA MOTION PICTURE FILM CLIPS 3) SUBTITLE	6) TECH OFFICE ASD/RWWS	10) FREQUENCY ASREQ	12) DATE 1ST SUB BLR16	14) DISTRIBUTION AND ADDRESSES			
4) DATA ITEM NUMBER DI-A-3010/M-106-1/T	5) CONTRACT REFERENCE SOW 5.1.5	7) DD 250 LT	8) AP CODE D	9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB	ASD/RWWS ASD/RWCC USER AGENCY	LT ONLY LT ONLY 2/0

16) REMARKS
 BLK 4: DID PARAGRAPH 10.1. APPLIES FOR VIDEO TAPE. THE VIDEO TAPE WILL BE RAW TAPES.
 BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.
 BLKS 10 & 12: AS REQUIRED BY DELIVERY ORDER. DUE 4 WEEKS AFTER COMPLETION OF TEST.

15) TOTAL 2/0

PREPARED BY <i>James R. O'Leary</i>	DATE 27 SEP 1990	APPROVED BY <i>[Signature]</i>	DATE 27 SEP 1990
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F33657-90-D-2100 EXHIBIT A, PAGE 10 OF 25

ATCH NR:	TO EXHIBIT: A	CONTRACT DATA REQUIREMENTS LIST	SYSTEM ITEM: REDCAP TO&M
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TO CONTRACT/PR: P33657-90-D-2100	CATEGORY: A	CONTRACTOR: CALSPAN
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1) SEQ NO A002	2) TITLE OR DESCRIPTION OF DATA PRESENTATION MATERIAL 3) SUBTITLE	6) TECH OFFICE ASD/RWWS	10) FREQUENCY BLK16	12) DATE 1ST SUB BLK16	14) DISTRIBUTION AND ADDRESSES
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4) DATA ITEM NUMBER DI-A-3024A/T	5) CONTRACT REFERENCE SOW PARA 5.5.2, 5.1.4	7) DD 250 LT	8) AP CODE D	9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB BLK16	ASD/RWWS 2/0 ASD/RWCC 1/0 ASD/RWKE LT ONLY ASD/RWEAW 1/0 ASD/OL-BA 1/0
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16) REMARKS
 BLK 4: USE BOUND HARD COPIES ONLY (NOT TRANSPARENCIES); CONTRACTOR FORMAT ACCEPTABLE.
 BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.
 BLKS 10, 12, 13, & 14: ADEQUATE COPIES TO BE AVAILABLE AT EACH REVIEW. DISTRIBUTION TO THESE ADDRESSEES NLT 15 DAYS AFTER COMPLETION OF THE REVIEW.

15) TOTAL 5/0

PREPARED BY <i>James R Green</i>	DATE 27 SEP 1990	APPROVED BY <i>[Signature]</i>	DATE 27 SEP 1990
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EXHIBIT A, PAGE 1 OF 25

ATCH NR:		TO EXHIBIT: A		CONTRACT DATA REQUIREMENTS LIST		SYSTEM ITEM: REDCAP T0&H	
TO CONTRACT/PR: F33657-90-D-2100		CATEGORY: A		CONTRACTOR: CALSPAN			
1) SEQ NO A003	2) TITLE OR DESCRIPTION OF DATA DATA ACCESSION LIST/INTERNAL DATA 3) SUBTITLE	6) TECH OFFICE ASD/RWWS	10) FREQUENCY QRTLY	12) DATE 1ST SUB BIK16	14) DISTRIBUTION AND ADDRESSES		
4) DATA ITEM NUMBER DI-A-3027A	5) CONTRACT REFERENCE SOW PARA 6.1, 7.1	7) DD 250 I.T	8) AP CODE D	9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB BIK16	ASD/RWWS ASD/OL-BA ASD/RWEAV ASD/RWKE ASD/RWCC 2/0 LT 1/0 1/0 LT ONLY 1/0
16) REMARKS BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS. BIKS 10, 12, & 13: DUE 30 DAYS AFTER CONTRACT AWARD; SUBSEQUENT SUBMITTALS DUE QUARTERLY THEREAFTER.							
						15) TOTAL	5/0

see ltr 27 Jun 91

46TW-OL-AG

Contract

27 Sep 91

PREPARED BY: *James K Green*

DATE: 27 SEP 1990

APPROVED BY: *[Signature]*

DATE: 27 SEP 1990

ATCH NR:		TO EXHIBIT: A		CONTRACT DATA REQUIREMENTS LIST			SYSTEM ITEM: REDCAP TO&M	
TO CONTRACT/PR: F33657-90-D-2100				CATEGORY: E		CONTRACTOR: CALSPAN		
1) SEQ NO A004	2) TITLE OR DESCRIPTION OF DATA DELETED 3) SUBTITLE			6) TECH OFFICE	10) FREQUENCY	12) DATE 1ST SUB	14) DISTRIBUTION AND ADDRESSES	
4) DATA ITEM NUMBER DELETED		5) CONTRACT REFERENCE		7) DD 250	8) AP CODE	9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB
16) REMARKS								15) TOTAL
PREPARED BY <i>James A. Green</i>				DATE 27 SEP 1990		APPROVED BY		DATE 27 SEP 1990

ATCH NR:	TO EXHIBIT: A	CONTRACT DATA REQUIREMENTS LIST	SYSTEM ITEM: REDCAP TO&M
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TO CONTRACT/PR: F33657-90-D-2100	CATEGORY: A	CONTRACTOR: CALSPAN
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1) SEQ NO A005	2) TITLE OR DESCRIPTION OF DATA TECHNICAL REPORT 3) SUBTITLE	6) TECH OFFICE ASD/RWWS	10) FREQUENCY BLK16	12) DATE 1ST SUB BLK16	14) DISTRIBUTION AND ADDRESSES		
4) DATA ITEM NUMBER DI-A-5029/T	5) CONTRACT REFERENCE SOW PARA 5.1.3	7) DD 250 LT	8) AP CODE AD	9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB BLK16	ASD/RWWS 5/0 USER AGENCY 7/0 ASD/RWCC LT ONLY ASD/RWKE LT ONLY ASD/OL-BA 1/0 ASD/RWEAW 1/0

16) REMARKS
 BLK 4: CONTRACTOR FORMAT ACCEPTABLE.
 BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.
 BLK 10: AS REQUIRED FOR EACH STUDY.
 BLKS 12 & 13: DUE IAW D.O., REVISIONS AS REQUIRED DUE 30 DAYS AFTER RECEIPT OF AF COMMENTS.

15) TOTAL 14/0

PREPARED BY <i>James A Green</i>	DATE 27 SEP 1990	APPROVED BY <i>[Signature]</i>	DATE 27 SEP 1990
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F33657-90-D-2100 EXHIBIT A, PAGE 14 OF 25

ATCH NR:		TO EXHIBIT: A		CONTRACT DATA REQUIREMENTS LIST			SYSTEM ITEM: REDCAP TO&M			
TO CONTRACT/PR: F33657-90-D-2100				CATEGORY: A			CONTRACTOR: CALSPAN			
1) SEQ NO A006	2) TITLE OR DESCRIPTION OF DATA CONFERENCE AGENDA 3) SUBTITLE			6) TECH OFFICE ASD/RWWS	10) FREQUENCY BLK16	12) DATE 1ST SUB BLK16	14) DISTRIBUTION AND ADDRESSES			
4) DATA ITEM NUMBER DI-A-7088	5) CONTRACT REFERENCE SOW PARA 5.5.2			7) DD 250 LT	8) AP CODE D	9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB BLK16	ASD/RWWS 2/0 ASD/RWCC 1/0 ASD/RWKE LT ONLY ASD/RWEAW 1/0 ASD/OL-BA 1/0	
16) REMARKS BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS. BIKS 10, 12, & 13: SUBMIT 21 DAYS BEFORE EACH REVIEW.										
							15) TOTAL 5/0			
PREPARED BY <i>James R Green</i>				DATE 27 SEP 1990		APPROVED BY: <i>[Signature]</i>			DATE 7 SEP 1990	

ATCH NR:	TO EXHIBIT: A	CONTRACT DATA REQUIREMENTS LIST	SYSTEM ITEM: REDCAP TO&M
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TO CONTRACT/PR: F33657-90-D-2100	CATEGORY: A	CONTRACTOR: CALSPAN
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1) SEQ NO A007	2) TITLE OR DESCRIPTION OF DATA CONFERENCE MINUTES 3) SUBTITLE	6) TECH OFFICE ASD/RWS	10) FREQUENCY BLK16	12) DATE 1ST SUB BLK16	14) DISTRIBUTION AND ADDRESSES ASD/RWS 2/0 ASD/RWCC 1/0 ASD/RWKE LT ONLY ASD/RWEAW 1/0 ASD/OL-BA 1/0	
4) DATA ITEM NUMBER DI-A-7089	5) CONTRACT REFERENCE SOW PARA 5.5.2	7) DD 250 I.T	8) AP CODE AD	9) IAC		11) AS OF DATE

16) REMARKS
 BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.
 BIKS 10, 12, & 13: SUBMITTAL DUE NLT 15 DAYS AFTER EACH REVIEW. REVISIONS AS REQUIRED WITHIN 30 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.

15) TOTAL 5/0

PREPARED BY <i>James A Green</i>	DATE 27 SEP 1990	APPROVED BY <i>[Signature]</i>	DATE 27 SEP 1990
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F33657-90-D-2100 EXHIBIT A, PAGE 16 OF 25

ATCH NR:		TO EXHIBIT: A		CONTRACT DATA REQUIREMENTS LIST			SYSTEM ITEM: REDCAP TO&M		
TO CONTRACT/PR: F33657-90-D-2100				CATEGORY: ILSS			CONTRACTOR: CALSPAN		
1) SEQ NO A008	2) TITLE OR DESCRIPTION OF DATA RECOMMENDED SPARE PARTS LIST 3) SUBTITLE			6) TECH OFFICE ASD/RWWS	10) FREQUENCY BLK16	12) DATE 1ST SUB BLK16	14) DISTRIBUTION AND ADDRESSES		
4) DATA ITEM NUMBER DI-ILSS-80134	5) CONTRACT REFERENCE SOW PARA 8.0			7) DD 250 LT	8) AP CODE D	9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB BLK16	
16) REMARKS BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS. BLKS 10, 12, & 13: INITIAL LIST DUE 30 DAYS AFTER DELIVERY FROM CONTRACT F33657-88-C-2093; DUE SEMIANNUALLY THEREAFTER.								ASD/RWWS ASD/RWKE ASD/RWCC ASD/RWEAW ASD/OL-BA	2/0 LT ONLY LT ONLY 1/0 1/0
								15) TOTAL	4/0
PREPARED BY <i>James R Green</i>				DATE 27 SEP 1990		APPROVED BY <i>[Signature]</i>		DATE 27 SEP 1990	

ATCH NR:	TO EXHIBIT: A	CONTRACT DATA REQUIREMENTS LIST	SYSTEM ITEM: REDCAP TO&M
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TO CONTRACT/PR: F33657-90-D-2100	CATEGORY: MGMT	CONTRACTOR: CALSPAN
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1) SEQ NO A009	2) TITLE OR DESCRIPTION OF DATA DELETED 3) SUBTITLE	6) TECH OFFICE	10) FREQUENCY	12) DATE 1ST SUB	14) DISTRIBUTION AND ADDRESSES	
4) DATA ITEM NUMBER DELETED	5) CONTRACT REFERENCE	7) DD 250	8) AP CODE	9) IAC		11) AS OF DATE

16) REMARKS

15) TOTAL

PREPARED BY <i>James R Green</i>	DATE 27 SEP 1990	APPROVED BY <i>[Signature]</i>	DATE 27 SEP 1990
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F33657-90-D-2100
EXHIBIT A, PAGE 18 OF 25

ATCH NR:	TO EXHIBIT: A	CONTRACT DATA REQUIREMENTS LIST	SYSTEM ITEM: REDCAP TO&M
TO CONTRACT/PR: P33657-90-D-2100		CATEGORY: NDTI	CONTRACTOR: CALSPAN
1) SEQ NO A010	2) TITLE OR DESCRIPTION OF DATA TEST REPORT 3) SUBTITLE	6) TECH OFFICE ASD/RWWS	10) FREQUENCY BLK16
4) DATA ITEM NUMBER DI-NDTI-80604	5) CONTRACT REFERENCE SOW PARA 5.1.2.2	7) DD 250 I.T	8) AP CODE AD
16) REMARKS BLK 8: SEE ATTACHMENT PRECEDING FIRST CORL FOR DISTRIBUTION STATEMENT. THE CONTRACTOR SHALL REQUEST FROM THE USER AGENCY WHICH DISTRIBUTION STATEMENT SHALL BE APPLIED ON THE DOCUMENTATION GENERATED. THE WARNING AND DESTRUCTION STATEMENTS ARE APPLICABLE AND SHALL BE USED CONCURRENT WITH THE DISTRIBUTION STATEMENT THAT IS CHOSEN. BLKS 10, 12, & 13: THE CONTRACTOR AND USER AGENCY WILL NEGOTIATE AN AGREABLE DELIVERY SCHEDULE TO BE STATED IN THE D.O. REVISIONS REQUIRED IF NECESSARY DUE 30 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.		9) IAC	11) AS OF DATE
		12) DATE 1ST SUB BLK16	13) DATE OF SUBS SUB BLK16
			14) DISTRIBUTION AND ADDRESSES ASD/RWWS 5/0 USER AGENCY 7/0 ASD/RWCC LT ONLY ASD/RWKE LT ONLY ASD/OL-BA 1/0 ASD/RWEAW 1/0
			15) TOTAL 14/0
PREPARED BY <i>James R Green</i>	DATE 27 SEP 1990	APPROVED BY <i>[Signature]</i>	DATE 27 SEP 1990

ATCH NR:		TO EXHIBIT: A		CONTRACT DATA REQUIREMENTS LIST		SYSTEM ITEM: REDCAP T06M	
TO CONTRACT/PR: F33657-90-D-2100		CATEGORY: CHAN		CONTRACTOR: CALSPAN			
1) SEQ NO A011	2) TITLE OR DESCRIPTION OF DATA ENGINEERING CHANGE PROPOSAL 3) SUBTITLE	6) TECH OFFICE ASD/RWCC	10) FREQUENCY BLK16	12) DATE 1ST SUB BLK16	14) DISTRIBUTION AND ADDRESSES		
4) DATA ITEM NUMBER DI-CHAN-80639/T	5) CONTRACT REFERENCE SOW PARA 5.6.1.1.2	7) DD 250 LT	9) AP 11) AS OF DATE	13) DATE OF SUBS SUB BLK16	ASD/RWCC *ASD/RWKE ASD/RWWS ASD/OI-BA FTD/TTIA FTD/TTIEV 11/0 1/0 1/0 1/0		
16) REMARKS BLK 4: FOR DD FORM 1692-2, ECP PAGE 3, BLACK 361: CRITICAL SINGLE POINT FAILURE ITEMS INDICATE DIRECT AND INDIRECT EFFECTS OF THE ECP ON CRITICAL SINGLE POINT FAILURE ITEMS. A CRITICAL SINGLE POINT FAILURE ITEM IS DEFINED AS: "A COMPONENT OR ITEM NOT COMPENSATED BY REDUNDANCY, BACK-UP SYSTEMS OR OPERATIONAL PROCEDURES, AND WHOSE FAILURE COULD RESULT IN A CLASS A OR B MISHAP AS DEFINED IN AFR 127-4. EACH ECP SHALL INCLUDE A NARRATIVE CONCERNING ITS IMPACT UPON SAFETY WITH HAZARDS LISTED, THEIR RISK ASSESSMENT AND IMPACT UPON THE PRESENT OR PROPOSED SYSTEM, IF NO POTENTIAL HAZARDS EXIST, THE BASIS FOR SUCH DETERMINATIONS MUST BE INCLUDED. BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS. BLKS 10, 12 & 13: SUBMIT AS REQUIRED WITHIN FOURTEEN (14) DAYS AFTER ACSN APPROVAL. *BLK 14: ASD/RWKE SHALL RECEIVE THE ORIGINAL TRANSMITTAL LETTER AND ECP.							
15) TOTAL						15/0	

PREPARED BY: *James R Green* DATE: 27 SEP 1990 APPROVED BY: *[Signature]* DATE: 27 SEP 1990

DD FORM 1423-1, SEP 86 FORM APPROVED OMB No. 0704-0188

Page 1 of 1 Pages

ATCH NR:		TO EXHIBIT: A		CONTRACT DATA REQUIREMENTS LIST			SYSTEM ITEM: REDCAP TO&H	
TO CONTRACT/PR: P33657-90-D-2100				CATEGORY: CMAN		CONTRACTOR: CALSPAN		
1) SEQ NO A012	2) TITLE OR DESCRIPTION OF DATA SPECIFICATION CHANGE NOTICE (SCN) 3) SUBTITLE			6) TECH OFFICE ASD/RWCC	10) FREQUENCY BLK16	12) DATE 1ST SUB BLK16	14) DISTRIBUTION AND ADDRESSES	
4) DATA ITEM NUMBER DI-CMAN-80643	5) CONTRACT REFERENCE SOW PARA 5.6.1.1.3		7) DD 250 LT	8) AP CODE AD	9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB BLK16	ASD/RWCC 5/0 ASD/RWWS 1/0 ASD/RWWE 1/0 ASD/RWEAW 2/0 *ASD/RWKE 1/0 ASD/OL-BA 1/0 FTD/TTIA 1/0 FTD/TTIEV 1/0 AFECO/ET 1/0
16) REMARKS BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS. BLK 10: AS REQUIRED FOR SPECIFICATION MAINTENANCE AND CHANGE CONTROL IAW THE PROVISIONS OF MIL-STD-480B, MIL-STD-483A, AND MIL-STD-490A. BLKS 12, 13 & 14: SUBMIT EACH PROPOSED SCN WITH ATTACHED PROPOSED CHANGES WITH THE ECP PACKAGE FOR CDRL 1011. REVISIONS AS REQUIRED. SUBMIT THE SCN AND SPECIFICATION CHANGE PAGES FOR EACH APPROVED SCN PACKAGE TO ALL ADDRESSES WITHIN 30 DAYS AFTER GOVERNMENT APPROVAL. *BLK 14: ASD/RWKE SHALL RECEIVE THE ORIGINAL TRANSMITTAL LETTER AND SCN. NOTE: PROPOSED CHANGE PAGES SHALL BE PRINTED ON COLORED PAPER.								
							15) TOTAL	15/0
PREPARED BY <i>James R Green</i>			DATE 27 SEP 1990		APPROVED BY <i>[Signature]</i>		DATE 27 SEP 1990	

TO EXHIBIT: A		CONTRACT DATA REQUIREMENTS LIST		SYSTEM ITEM: REDCAP T06M	
TO CONTRACT/PR: F33657-90-D-2100		CATEGORY: CHAN		CONTRACTOR: CALSPAN	
1) SEQ NO A013	2) TITLE OR DESCRIPTION OF DATA DELETED 3) SUBTITLE	6) TECH OFFICE	10) FREQUENCY	12) DATE 1ST SUB	14)
4) DATA ITEM NUMBER DELETED	5) CONTRACT REFERENCE	7) DD 250 CODE	8) AP 9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB
16) REMARKS					
15) TOTAL					

PREPARED BY *James L Green* | 27 SEP 1990 | APPROVED BY _____ | DATE 27 SEP 1990

ATCH NR:	TO EXHIBIT: A	CONTRACT DATA REQUIREMENTS LIST	SYSTEM ITEM: REDCAP T0&M
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TO CONTRACT/PR: F33657-90-D-2100	CATEGORY: NDTI	CONTRACTOR: CALSPAN
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1) SEQ NO A014	2) TITLE OR DESCRIPTION OF DATA TEST PLANS/PROCEDURES 3) SUBTITLE IMPLEMENTATION PLAN	6) TECH OFFICE ASD/RWWS	10) FREQUENCY BLK16	12) DATE 1ST SUB BLR16	14) DISTRIBUTION AND ADDRESSES			
4) DATA ITEM NUMBER DI-NDTI-80808/T	5) CONTRACT REFERENCE SOW PARA 5.1.1.1, 5.1.1.1.1	7) DD 250 I.T	8) AP CODE D	9) IAC	11) AS OF DATE	13) DATE OF SUBS SUB	ASD/RWWS ASD/RWCC ASD/RWKE ASD/OL-BA USER AGENCY	5/0 LT ONLY LT ONLY 1/0 1/0

16) REMARKS
 BLK 4: CONTRACTOR FORMAT ACCEPTABLE WITH CONTENTS PER DID PARA 10.3.4.A.
 BLK 8: SEE ATTACHMENT PRECEDING FIRST CDRL FOR DISTRIBUTION STATEMENTS. THE CONTRACTOR SHALL REQUEST FROM THE USER AGENCY WHICH DISTRIBUTION STATEMENT SHALL BE APPLIED ON THE DOCUMENTATION GENERATED. THE WARNING AND DESTRUCTION STATEMENTS ARE APPLICABLE AND SHALL BE USED CONCURRENT WITH THE DISTRIBUTION STATEMENT THAT IS CHOSEN.
 BIKS 10 & 12: AS REQUIRED BY THE DELIVERY ORDERS.

15) TOTAL 13/0

PREPARED BY <i>James R Green</i>	DATE 27 SEP 1990	APPROVED BY <i>[Signature]</i>	DATE 27 SEP 1990
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EXHIBIT A, PAGE 23 OF 25

ATCH NR:	TO EXHIBIT: A	CONTRACT DATA REQUIREMENTS LIST	SYSTEM ITEM: REDCAP TO&M
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TO CONTRACT/PR: F33657-90-D-2100	CATEGORY: NDTI	CONTRACTOR: CALSPAN
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1) SEQ NO A015	2) TITLE OR DESCRIPTION OF DATA TEST PLANS/PROCEDURES 3) SUBTITLE TEST PLAN	6) TECH OFFICE ASD/RWWS	10) FREQUENCY BLK16	12) DATE 1ST SUB BLK16	14) DISTRIBUTION AND ADDRESSES ASD/RWWS 5/0 ASD/RVCC LT ONLY ASD/RWKE LT ONLY ASD/OL-BA 1/0 USER AGENCY 7/0	
4) DATA ITEM NUMBER DI-NDTI-80808/T	5) CONTRACT REFERENCE BLK16	7) DD 250 LT	8) AP CODE D	9) IAC		11) AS OF DATE

16) REMARKS
 BLK 5: SOW PARA 5.1.1.1.2, 5.1.1.6, 5.1.1.3, 5.1.1.4, 5.1.1.5.
 BLK 4: CONTRACTOR FORMAT ACCEPTABLE WITH CONTENTS PER DID PARA 10.3.3.
 BLK 8: SEE ATTACHMENT PRECEDING FIRST CDRL FOR DISTRIBUTION STATEMENTS. THE CONTRACTOR SHALL REQUEST FROM THE USER AGENCY WHICH DISTRIBUTION STATEMENT SHALL BE APPLIED ON THE DOCUMENTATION GENERATED. THE WARNING AND DESTRUCTION STATEMENTS ARE APPLICABLE AND SHALL BE USED CONCURRENT WITH THE DISTRIBUTION STATEMENT THAT IS CHOSEN.
 BLKS 10 & 12: AS REQUIRED BY THE DELIVERY ORDERS.

15) TOTAL 13/0

PREPARED BY <i>James R Green</i>	DATE 27 SEP 1990	APPROVED BY <i>[Signature]</i>	DATE 27 SEP 1990
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F33657-90-D-2100
EXHIBIT A, PAGE 24 OF 25

ATCH NR:	TO EXHIBIT: A	CONTRACT DATA REQUIREMENTS LIST	SYSTEM ITEM: REDCAP TO&H
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TO CONTRACT/PR: P33657-90-D-2100	CATEGORY: NDTI	CONTRACTOR: CALSPAN
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1) SEQ NO	2) TITLE OR DESCRIPTION OF DATA	6) TECH OFFICE	10) FREQUENCY	12) DATE 1ST SUB	14) DISTRIBUTION AND ADDRESSES	
3) SUBTITLE	7) DD	8) AP	9) IAC	11) AS OF DATE		
A016	TEST REPORTS	ASD/RWWS	BLK16	BLK16	USER AGENCY ASD/RWCC ASD/RWKE ASD/RWWS 2/0 LT ONLY LT ONLY 3/0	
4) DATA ITEM NUMBER	5) CONTRACT REFERENCE	7) DD 250 LT	8) AP CODE D	9) IAC		11) AS OF DATE
DI-NDTI-80809/T	SOW PARA 5.1.2.1					
16) REMARKS BLK 4: CONTRACTOR FORMAT ACCEPTABLE. CONTENT PER 10.2.2(a), (b), (d), (f), (i), AND (j). BLKS 8: SEE ATTACHMENT PRECEDING FIRST CDRL FOR DISTRIBUTION STATEMENTS. THE CONTRACTOR SHALL REQUEST FROM THE USER AGENCY WHICH DISTRIBUTION STATEMENT SHALL BE APPLIED ON THE DOCUMENTATION GENERATED. THE WARNING AND DESTRUCTION STATEMENTS ARE APPLICABLE AND SHALL BE USED CONCURRENT WITH THE DISTRIBUTION STATEMENT THAT IS CHOSEN. BLKS 10 & 12: AS REQUIRED BY THE DELIVERY ORDERS.						
15) TOTAL					5/0	

PREPARED BY <i>James R Green</i>	DATE 27 SEP 1990	APPROVED BY <i>[Signature]</i>	DATE 27 SEP 1990
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EXHIBIT A, PAGE 25 OF 25

W/A - B0A
J. 64

DEPARTMENT OF DEFENSE CONTRACT SECURITY CLASSIFICATION SPECIFICATION		1. THE REQUIREMENTS OF THE DOD INDUSTRIAL SECURITY MANUAL APPLY TO ALL SECURITY ASPECTS OF THIS EFFORT. THE FACILITY CLEARANCE REQUIRED IS: <u>TOP SECRET</u>			
2. THIS SPECIFICATION IS FOR:		3. CONTRACT NUMBER OR OTHER IDENTIFICATION NUMBER <i>(Prime contracts must be shown for all subcontracts)</i>	4. DATE TO BE COMPLETED <i>(Estimated)</i>	5. THIS SPECIFICATION IS: <i>(See "NOTE" below. If item b or c is "X'd", also enter date for item a)</i>	
X	a. PRIME CONTRACT	a. PRIME CONTRACT NUMBER F33657-90-D-2100	a. 95 Oct 01	X a. ORIGINAL <i>(Complete date in all cases)</i>	DATE 90 Oct 02
	b. SUBCONTRACT <i>(Use item 18 for subcontracting beyond second tier)</i>	b. FIRST TIER SUBCONTRACT NO.	b.	b. REVISED <i>(Supersedes all previous specs.)</i>	REVISION NO. DATE
	c. REQUEST FOR BID, REQUEST FOR PROPOSAL OR REQ FOR QUOTATION	c. IDENTIFICATION NUMBER	c. DUE DATE	c. FINAL	DATE
6. Is this a follow-on contract? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No. If YES, complete the following:					
a. F33657-86-D-0146 <small>PRECEDING CONTRACT NUMBER</small>		b. 90 Sep 30 <small>DATE COMPLETED</small>		c. Accountability for classified material on preceding contract	
<input type="checkbox"/> Is <input type="checkbox"/> Is not, transferred to this follow-on contract.					
7a. Name, Address & Zip Code of Prime Contractor *		b. FSC Number	c. Name, Address & Zip Code of Cognizant Security Office		
Calspan Corporation P.O. Box 400 Buffalo NY 14225-1967		92325	DIS Director of Industrial Security 495 Summer St Boston, MA 02210-2192		
8a. Name, Address & Zip Code of First Tier Subcontractor *		b. FSC Number	c. Name, Address & Zip Code of Cognizant Security Office		
N/A		N/A	N/A		
9a. Name, Address & Zip Code of Second Tier Subcontractor, or facility associated with IFB, RFP OR RFQ *		b. FSC Number	c. Name, Address & Zip Code of Cognizant Security Office		
N/A		N/A	N/A		
* When actual performance is at a location other than that specified, identify such other location in Item 15.					
10 a. General identification of the Procurement for which this specification applies REDCAP Test Operations and Maintenance				b. DoDAAD Number of Procuring Activity identified in Item 16d. FQ7615	
c. Are there additional security requirements established in accordance with paragraph 1-114 or 1-115, ISR? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO. If YES, identify the pertinent contractual documents in Item 15.					
d. Are any elements of this contract outside the inspection responsibility of the cognizant security office? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO. If YES, explain in Item 15 and identify specific areas or elements.					
11 ACCESS REQUIREMENTS		YES	NO	ACCESS REQUIREMENTS (Continued)	
a. Access to Classified Information Only at other contractor/ Government activities.			X	j. Access to SENSITIVE COMPARTMENTED INFORMATION	X
b. Receipt of classified documents or other material for reference only (no generation).			X	k. Access to other Special Access Program information <i>(Specify in item 15)</i> .	X
c. Receipt and generation of classified documents or other material.		X		l. Access to U. S. classified information outside the U.S. Panama Canal Zone, Puerto Rico, U.S. Possessions and Trust Territories.	X
d. Fabrication/ Modification/ Storage of classified hardware.		X		m. Defense Documentation Center or Defense Information Analysis Center Services may be requested.	X
e. Graphic arts services only.			X	n. Classified ADP processing will be involved.	X
f. Access to IPO information.		X		o. REMARKS:	
g. Access to RESTRICTED DATA.			X		
h. Access to classified COMSEC information.		X			
i. Cryptographic Access Authorization required.			X		
12. Refer all questions pertaining to contract security classification specification to the official named below (NORMALLY, thru ACO (item 16e); EMERGENCY, direct with written record of inquiry and response to ACO) (thru prime contractor for subcontracts).					
a. The classification guidance contained in this specification and attachments referenced herein is complete and adequate.					
b. Typed name, title and signature of program/ project manager or other designated official Mordecai N. Drazin, USAF Program Manager, EF Simulations Div Directorate of Electronic Combat			c. Activity name, address, Zip Code, telephone number and office symbol ASD/RWWS Wright-Patterson AFB, OH 45433-6503 (513) 255-3148 AV 785-3747		
NOTE: Original Specification (Item 5a) is authority for contractors to mark classified information. Revised and Final Specifications (Items 5b and c) are authority for contractors to remark the regraded classified information. Such actions by contractors shall be taken in accordance with the provisions of the Industrial Security Manual.					

13 a. Information pertaining to classified contracts or projects, even though such information is considered unclassified, shall not be released for public dissemination except as provided by the Industrial Security Manual (paragraph 50 and Appendix IX).

b. Proposed public releases shall be submitted for approval prior to release Direct Through (Specify): ASD/RWWS Wright Patterson AFB, OH 45433-6503 to ASD/PA. Wright Patterson AFB, OH 45433-6503. No public release authorized for Sensitive Compartmented Information (SCI) to the Directorate For Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs) * for review in accordance with paragraph 50 of the Industrial Security Manual. * In the case of non-DoD User Agencies, see footnote, paragraph 50, Industrial Security Manual.

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

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

- a. A completed narrative is (1) attached, or (2) transmitted under separate cover and made a part of this specification.
 b. The following classification guide(s) is made a part of this specification and is (1) attached, or (2) transmitted under separate cover. (List guides under Item 15 or in an attachment by title, reference number and date).
 c. Service-type contract/ subcontract. (Specify instructions in accordance with ISR / ISM, as appropriate.).
 d. "X" only if this is a final specification and Item 6 is a "NO" answer. In response to the contractor's request dated _____, retention of the identified classified material is authorized for a period of _____.
 e. Annual review of this DD Form 254 is required. If "X'd" provide date such review is due: 92 Oct 02

15. Remarks (Whenever possible, illustrate proper classification, declassification, and if applicable, downgrading instructions).
Ref Block 11c: The contractor will require access to classified source data up to and including TOP SECRET in support of this work effort. Any extracts or use of such data will require the contractor to apply derivative classifications and markings consistent with the source from which the extracts were made.
Ref 11c, 11h, 11n: COMSEC and TEMPEST requirements apply. See SCR #H-016 and Section H for details.
Ref Block 11d: This contractor is required to provide adequate storage for classified hardware to the level TOP SECRET which is of such size or quantity that it cannot be safeguarded in an approved storage container.
Ref Block 11f: Contractor personnel must be briefed for NATO prior to access.
Ref Block 11h: Contractor personnel must receive COMSEC briefings prior to access. See SCR #H-002 of Section H for details. See attached for STU-III Secure telephone requirements.
Ref Block 11k: Special Access Requirements (SAR) procedures apply. See SCR #H-016 of Section H for details. Special access programs will grant access when the need-to-know is required to accomplish the required efforts under this contract. (See attached for further details.)

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

REQUIRED DISTRIBUTION:
 Prime Contractor (Item 7a)
 Cognizant Security Office (Item 7c)
 Administrative Contracting Office (Item 8a)
 Quality Assurance Representative
 Subcontractor (Item 8a)
 Cognizant Security Office (Item 8c)
 Program/ Project Manager (Item 12a)
 U.S. Activity Responsible for Overseas Security Administration

ASD/SP COORDINATION PC-ONLY 11-16-90 JN

b. Typed name and title of approving official: WALTER E. ULLMAYER, Contracting Officer
c. Signature: [Handwritten Signature]
d. Approving official's activity address and Zip Code: ASD/RWKE, Wright-Patterson AFB, OH 45433-6503
e. Name, address and Zip Code of Administrative Contracting Office: DCMAO, Buffalo, 1103 Federal Building, 111 West Huron St., Buffalo NY 14202-2392

Ref Block 14b: ASD Security Classification Guide, Air Force Electronic Warfare Evaluation Simulator (AFEWES) and Air Force Real-Time Electromagnetic Digitally Controlled Analyzer and Processor (REDCAP), 5 Jun 89.

Block 15a: The contract monitor is Lt Col John E. Humphries, ASD/OL-BA, Air Force Plant #4, P.O. Box 371, Fort Worth, TX 76101, 817-763-4856.

Block 15b: All Sensitive Compartmented Information (SCI) will be handled in accordance with special security requirements which will be included by the designated responsible security office. See attached for further information.

- Block 15c: DIS is relieved of inspection responsibility for Special Access Required (SAR) material. The program Office will provide security oversight for SAR application.

Block 11n: Classified ADP processing will occur at Calspan Corporation, Buffalo, NY 14225.

The use of the STU-III secure telephone is required for all telephonic transmissions of sensitive but unclassified and classified information between the contractor, its classified subcontractors, and government agencies involved in this effort. STU-III terminals should be acquired as plant equipment as defined in DoD 5220.22-S-1, COMSEC Supplement to the Industrial Security Manual. COMSEC accounts and SCI agreements, as applicable, should be established IAW DoD 5220.22-S-1. For this effort, sensitive but unclassified information is anything covered by the Privacy Act of 1974, any company proprietary data, and any information the disclosure of which reasonably be expected to adversely affect national security or government interests.

GENERAL INTELLIGENCE MATERIAL/FOREIGN DISCLOSURE

1. Special requirements for general and foreign intelligence material. In addition to the requirements and controls for classified material, the Director, Central Intelligence sets up additional requirements and controls for intelligence in the possession of contractors. The contractor must:

- a. Maintain accountability for all intelligence released in his or her custody.
- b. Not reproduce any intelligence without the written permission of the releasing agency. If permission is granted, each copy is controlled in the same manner as the original.
- c. Not destroy any intelligence without advance approval of the releasing agency.
- d. Restrict access to only those individuals who possess the required security clearances and who are actually providing services under the contract. Further dissemination to other contractors, subcontractors, other government agencies, and private individuals or organizations is prohibited unless authorized in writing by the releasing agency.
- e. Not release any intelligence material to foreign nationals or immigrant aliens whether or not they are also consultants, U.S. contractors, or employees of the contractors, and regardless of the level of their security clearance except with advance written permission from the originator.
- f. Ensure that each employee having access to any intelligence material is fully aware of the special requirements for this material and maintains records in manner that permits the contractor to furnish on demand, the names of individuals who have had access to the material in their custody.
- g. Not transfer and/or use intelligence information in any IR&D efforts without written authorization from the releasing agency.

2. Returning intelligence to the Air Force. Upon completion or termination of the classified contract, or sooner, when the purpose of the release has been served, the contracting officer must ensure that the contractor returns all intelligence (furnished or generated), unless retention or destruction is authorized in writing by the originator of the intelligence or Senior Intelligence Officer (SIO) of the releasing command.

3. RELEASE OF CLASSIFIED AND UNCLASSIFIED INFORMATION TO FOREIGN GOVERNMENT AND THEIR REPRESENTATIVES: Any military activity or defense contractor receiving a request from a foreign government, or a representative thereof, for classified and/or unclassified information about this program shall forward the request to ASD/XR1D. Information released under FMS must comply with the specific USAF disclosure guidance issued for the specific FMS customer.

USE OF SPECIAL INTELLIGENCE MARKINGS

1. Authorized Control Markings of Intelligence Information

a. "Warning Notice - Intelligence Sources and Methods Involved (WNINTEL)"

(1) This marking is used, with a security classification, to identify information whose sensitivity requires constraints on its further dissemination and use. This marking may be used only on intelligence which identifies or would reasonably permit identification of an intelligence source or method which is susceptible to countermeasures that could nullify or reduce its effectiveness.

(2) To avoid confusion as to the extent of dissemination and use restrictions governing the information involved, the marking may not be used in conjunction with special access of SCI controls. This marking may be abbreviated as "WNINTEL" or as "WN".

b. "Dissemination and Extraction of Information Controlled by Originator (ORCON)"

This marking is used, with a security classification, to enable a continuing knowledge and supervision by the originator of the use made of the information involved. This marking may be used only on intelligence which clearly identifies or would reasonably permit ready justification of an intelligence source or method which is particularly susceptible to counter-measures that would nullify or measurably reduce its effectiveness. This marking may be used when an item of information will reasonably be protected by use of other markings specified herein, or by the application of the "need-to-know" principle and safeguarding procedures of the security classification system.

c. "Not Releasable to Foreign Nationals (NOFORM)"

This marking must be used with a security classification to identify intelligence that may not be released in any form to foreign governments, foreign nationals, or non-US citizens without permission of the US Government originator, and then only when released in compliance with the National Disclosure Policy.

d. "Authorized for Release to (Name of country(ies)/international organization)"

The above is abbreviated "REL_____."

This marking must be used when it is necessary to identify classified intelligence material that the US Government Originator has predetermined to be releasable or has been released through established foreign disclosure channels to the indicated country(ies) or organization.

2. Procedures Governing Use of Control Markings

a. Any recipient desiring to use intelligence in manner contrary to the restrictions established by the control markings set forth above shall obtain the advanced permission of the originating agency. Such permission applies only to the specific purposes agreed to by the originator and does not automatically apply to all recipients. Originator should insure that prompt consideration is given to recipient's requests in these regards, with particular attention to reviewing and editing if necessary, sanitized or paraphrased versions to derive a test suitable for release subject to lesser or no control markings.

b. The control markings authorized above shall be shown on the title page, front cover, and other applicable pages of documents, incorporated in the text of electrical communications, shown on graphics, and associated (in full or abbreviated form) with data stored or processed in automatic data processing systems. The control markings also shall be indicated by parenthetical use of the markings abbreviations at the beginning or end of the appropriate portions. If the control markings apply to several or all portions, the document may be marked with a statement to this effect rather than marking each portion individually.

c. The control markings in paragraph one shall be individually assigned at the time of preparation of intelligence products and used in conjunction with security classifications and other marking specified by EO 12356 and its implementing ISOO Directive. The markings shall be carried forward to any new format in which the same information is incorporated including oral and visual presentations.

SPECIAL ACCESS REQUIREMENTS/PROCEDURES

These Requirements/Procedures must be inserted elsewhere into the contract (not in the 254).

1. The contractor will identify the special access security manager responsible for managing the special access program. The appointing letter will be given to the special access security manager, a copy sent to the Air Force program/project manager, and a copy kept on file at the contractor's facility.

2. BRIEFING:

a. The Air Force program/project manager will brief the contractor special access security manager. The contractor's special access security manager will complete the attached briefing certificate. The Air Force program/project manager will maintain the certificate and furnish a copy to the contractor's special access security manager. The briefing and debriefing requirements are established on the attached briefing certificate.

b. The contractor special access security manager will in turn brief the contractor employees given special access and have them complete the briefing certificate. The same access security manager will maintain an access list and furnish the Air Force program/project manager a copy which shows access levels.

c. The contractor special access security manager will conduct an annual review to determine the need for persons to have continued access.

3. PROTECTION OF SPECIAL ACCESS INFORMATION:

a. Whenever possible, special access information will be broken out of lengthy documents and handled separately to preclude unnecessary impediment to the flow of other material.

b. The front or first page and back cover of documents containing special access program information will be marked "SPECIAL ACCESS REQUIRED (PROGRAM TITLE)". The SAR page/paragraphs must be marked accordingly.

c. For electronically transmitted messages, the above procedures will be followed. Also, the message will include the notice "LIMITED DISTRIBUTION", "LIMDIS".

d. MAILING:

(1) Inside envelope/wrapper. Inside envelope/wrapper will be stamped with the appropriate classification on the top and bottom of both sides. The inside envelope/wrapper will also be marked on both sides "SPECIAL ACCESS REQUIRED - (PROGRAM TITLE)". Address first the office and then to the attention of the individual cleared for the special access program. Add the caveat "To be Opened by Addressee Only."

(2) Outside envelope/wrapper. The outside envelope/wrapper will be marked in accordance with standard procedures. Neither the marking

"SPECIAL ACCESS REQUIRED - (PROGRAM TITLE)", not the name of the cleared individual will be marked on the outside envelope/wrapper.

4. The contractor special access security manager will establish written procedures for mail and telecommunication center personnel on the proper handling, opening, storing, and distributing special access program information. A copy of this procedure will be furnished to and approved by the Air Force program/project manager. This procedure will be reviewed annually by the contractor special access security manager.

5. Designated Government Contract Monitor is _____ . Symbol
Phone _____ .

6. Insure proper SAR briefing statement is attached to DD 254.

SENSITIVE COMPARTMENTED INFORMATION CLAUSES

The following controls will apply to Sensitive Compartmented Information (SCI) provided under the contract:

1. Item 10c: USAFINTEL 201-1, DOD TS-5105.21-M-3, and DIAMs 50-3 and 50-5 provide the necessary guidance for physical, personnel, information, classification and TEMPEST security measures and is part of the sensitive compartmented information security specifications for the contract.
 2. Item 10d: This contract requires access to sensitive compartmented information (SCI). The Special Security Office, Foreign Technology Division (SSO FTD) has exclusive security responsibility for all SCI released to the contractor or developed under this contract. Defense Investigative Service is relieved of security inspection responsibility for all SCI, but retains responsibility for all non-SCI classified material released to the contractor or developed under this contract and held within the contractor's SCIF.
 3. All SCI will be handled in accordance with special security requirements which will be furnished by the Cognizant Security Authority (CSA) or the supporting Special Security Office, (SSO).
 4. SCI will not be released to contractor employees without specific release approval by the originator of the material as outlined in governing directives; based on prior approval and certification of 'need-to-know' by the designated contract monitor, Capt Jimmy L. Pollard, ASD/RWWS, AUTOVON 785-3145, Commercial (513) 255-3148.
 5. Names of contractor personnel requiring access to SCI will be submitted to the contract monitor for approval. Upon receipt of written approval from the contract monitor, ASD/FTD/SP will provide the company security officer with the necessary data to submit request(s) for special background investigations in accordance with DOD 5220.22-M, Industrial Security Manual for Safeguarding Classified Information to ASD/FTD/SP, Wright-Patterson AFB, OH 45433-6503.
 6. Inquiries pertaining to classification guidance on SCI will be directed to the contract monitor listed in '4' above.
 7. SCI furnished in support of this contract remains the property of the DOD department, agency or command that releases it. Upon completion or cancellation of the contract, SCI furnished will be returned to the direct custody of the SSO FTD.
-
8. SCI Facility (SCIF) meeting the security requirements for storage of SCI has been established and will be maintained by the contractor. SCI will be stored and maintained only in such properly accredited facilities at the contractor location.

access to SCI for contract completion purposes, only at the sponsoring agency and other government facilities. These persons will be granted access by the sponsoring agency.

9. Computer Security, the processing of SCI on computer equipment must be in compliance with DIAM 50-4. Authority to process SCI on computer equipment will be granted by the office having responsibility for the SCI facility. DIAM 50-5, Vol. II contains policy and procedures on security of compartmented computer operations. For assistance contact the FTD Directorate of Information Security (FTD/SPI), Wright-Patterson AFB, OH 45433-6503.

10. This contract requires use of the DCS system.

CALSPAN CORPORATIONSmall Business and Small Disadvantaged Business
Subcontracting PlanNo. 90-23Date 13 December 1990Federal Agency: USAF/AFSC Aeronautical Systems Division (ASD)
Wright Patterson Air Force Base, OH 45433-6503Calspan Proposal No. 9563

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

1. Estimated Planned Subcontracts

	<u>Percentage Goals</u>	<u>Subcontract Dollars</u>
a.		
Total Planned Subcontracts	<u>100.0</u>	<u>\$533,400.00</u>
To Small Business	<u>72.0</u>	<u>384,000.00</u>
To Small Disadv. Business	<u>9.6</u>	<u>51,200.00</u>
TOTAL	<u>81.6</u>	<u>435,200.00</u>
To Large Business	<u>18.4</u>	<u>98,200.00</u>

- b. The principal supplies and services anticipated to be subcontracted to Small and Small Disadvantaged Businesses will be in the following areas:

Paper, printing, duplicating supplies, temporary employment services

The principal supplies and services anticipated to be subcontracted to Large Businesses, either because they are specified by the customer or they are not obtainable from small businesses, will be in the following areas:

Computer equipment

- c. To develop the small and small disadvantaged business procurement goals, Calspan has a procedure whereby discussions are held to determine the potential subcontracting opportunities after the first draft of the proposal cost estimate is prepared. Participants vary depending upon the nature of the program, but the Purchasing Manager, the SBLO, Contract Manager and Proposal Engineer are the regular attendees. Discussions were held among the following participants to ensure that proper information is included within the plan:

David R. Beck	- Technical
Clifford J. Schimpf	- Contracts
Bradley T. Burch	- Pricing
Richard J. Daley	- Subcontracts

Since Calspan Corporation is a research, development and testing organization and does not generally engage in manufacturing, it does not have an established make or buy procedure. The problem is addressed separately and distinctly for each individual requirement as it occurs. Consequently, the question of make or buy is included in the initial discussion described above by the individuals concerned. There are always members of purchasing management in attendance at the make or buy meetings.

- d. Calspan has not included any costs related to indirect or overhead purchases obtained from small and small disadvantaged businesses, in this subcontracting plan goals.
- e. Some of the source references utilized:
- The Small Business Administration Procurement Automated Source System.
 - Current Edition of National Minority Business Director - "Try Us".
 - Department of Defense Small Business Directory distributed by DCMR, Boston, published by Cameron Station, Virginia.
 - Registry of Minority Firms published by the Small Business Administration.
 - Department of Defense Minority Business Directory from DCMR, Boston.
 - Small Disadvantaged Business Concerns Source bid compiled in-house.
 - DOD Deputy for Small Business, DCMAO, Buffalo.

- Upstate New York Regional Minority Purchasing Council, Inc., certified listing.
- Listing of Small Disadvantaged Businesses (SDBs) Offered Technical Assistance Services by Mesa Services International, Inc. provided by Office of Small and Disadvantaged Business Utilization.
- Firms listed in the 8(A) Business Development Program of the U. S. Small Business Administration.
- Department of Defense funded listing entitled "An Inventory of the Capabilities of the Historically Black Colleges and Universities and Other Minority Institutions (HBCUs/MIs)" prepared by The National Association for Equal Opportunity in Higher Education.

2. The Subcontracting Plan will be administered by:

Primary: Richard J. Daley, Purchasing Manager (716) 631-6768

Secondary: Theodore C. Donner, Subcontracts Administrator (716) 631-6795

4455 Genesee Street, Post Office Box 400, Buffalo, New York 14225

The primary Small Business Liaison Officer (SBLO) is also the Manager of the Purchasing Section. The secondary SBLO has a direct Reporting Line to Mr. Daley. The SBLO duties include keeping top management advised on a monthly basis of the small business subcontracting program, preparation and submittal of the required quarterly and semi-annual reports, conducting reviews with Government representatives and providing liaison and interface with the Purchasing Department on small and disadvantaged sources, procurements, monitoring performance against subcontract plans to evaluate compliance and initiate corrective action when necessary, maintenance of all internal records pertaining to the Small Business Program, and maintenance of contacts with all Government agencies regarding subcontracting activities at Calspan.

Additional duties of the SBLO include, but are not limited to, ensuring that goals are established for each subcontracting plan. Moreover, the SBLO also reviews each plan to ensure that goals are both realistic and achievable and that all elements of the plan are accurate, complete and current prior to submittal and throughout contract performance. The SBLO also ensures that the composite goals always contain consideration of the capabilities of Historically Black Colleges and Universities and other Minority Institutions. Furthermore, the SBLO represents Calspan at Federal, State and privately organized procurement conferences, workshops and trade fairs conducted locally, regionally and nationally.

As early as 1964 Calspan Corporation used a computerized system to monitor the various procurement actions identified as large, small, minority, women-owned, local, etc. businesses concerns. Subsequently, this system was adopted by other area concerns involved in Government contracting. A special summary printout of all actions of \$10,000 or more is a part of the system originally intended for responding to the old voluntary Small Business Utilization Program. We recently expanded the system to produce a printout of all purchases by contract by business concern category to accommodate the review and reporting requirements for individual subcontracting plans. The Small Business Liaison Officer is responsible for submission of required subcontracting reports, Standard Form 295 (Federal Agency Quarterly Summary Subcontracting Report) and Standard Form 294 (Federal Agency Individual Subcontracting Report), to the respective Government agencies including the Small Business Administration and DLA, DCMAO representatives in accordance with the instructions on these forms as required by FAR 19.704(A)(5).

3. Efforts

- (A) Calspan Corporation has developed a division-wide policy statement signed by the Senior Vice President and General Manager of Calspan Advanced Technology Center which acknowledges the company's contractual commitment to the Small Business Program. Responsibility for compliance rests with managers through the organization who are capable of implementing the policy including program managers, purchasing personnel, and item end users.
- (B) Calspan Corporation conducts formal training relative to SASDB subcontracting requirements training for all personnel involved in the acquisition cycle at least annually. Training is conducted more frequently for purchasing personnel and provides the context to disseminate data relative to actual achievements against subcontracting goals.
- (C) Calspan Corporation assists SASDB firms by arranging solicitations, response cycles, quantities, and delivery schedules to encourage SASDB participation in the subcontracting process to an extent consistent with efficient prime contract performance.
- (D) Calspan's Senior Management is apprised of achievements against subcontracting plans as well as the overall status of the Small Business Program at least annually.
- (E) Potential subcontractors are counseled directly on specific acquisitions and generally at Procurement Conferences and/or Trade Fairs in an effort to increase SASDB participation in the subcontracting process.
- (F) Financial and/or technical assistance is provided to both Small Business and Small Disadvantaged Business whenever necessary, practical, and consistent with efficient Prime Contract performance.

- (G) Calspan Corporation maintains an in-house purchasing system. As a part of this system each buyer has been instructed in the requirements of P.O. 95-507, as well as pertinent, additional requirements contained in P.L. 99-661, "National Defense Procurement Act of 1987" which establishes a five (5%) percent goal for participation in the U. S. Department of Defense procurement process for Small Disadvantaged Businesses (SDBs), Historically Black Colleges and Universities (HBCUs) and other Minority Institutions (MIs), P.L. 100-180, Section 806: "Requirement for Substantial Progress on Minority and Small Business Contract Awards", and P.L. 100-656, "Business Opportunity Development Reform Act of 1988". Further, continuous informal instructions are given to pertinent purchasing personnel for periodic updating on these, and any subsequent public laws enacted which concern procurement activities involving small and small disadvantaged businesses. Written documentation is mandated as part of every Calspan procurement in excess of \$250, showing the extent of competition among small and small disadvantaged vendors; the reasons for awarding to the successful bidder, and reasons as to why small and small disadvantaged business did or did not win the award, when such is the case.

4. Flow Down Requirements

Calspan Corporation agrees to include the clause in the contract entitled "Utilization of Small Business Concerns and Small Disadvantaged Concerns" (FAR 52.219-8), in all subcontracts that offer further subcontracting opportunities, and will require all subcontractors (except small business) who receive subcontracts in excess of \$500,000 (\$1,000,000 for construction work) to adopt a plan similar to the plan agreed to by Calspan.

5. Reports and Studies

Calspan Corporation agrees to submit additional periodic reports and cooperate in any studies or surveys as may be required by a federal agency or the Small Business Administration in order to determine the extent of compliance with the Subcontracting Plan submitted herein. Calspan will submit Standard Form (SF) 294 and 295 in accordance with instructions. In addition, Calspan agrees to ensure that subcontractors develop and submit subcontracting plans similar to the one prepared by Calspan and submit SF 294's to demonstrate the level of compliance with each plan.

6. Listing of Types of Records Calspan Corporation Maintains

- a. Small and disadvantaged business source lists, guides, and other data identifying small and small disadvantaged business vendors.
- b. Organizations contacted for small and disadvantaged business sources.
- c. On a contract-by-contract basis, records on all subcontract solicitations over \$10,000, indicating on each solicitation (i) whether small business was solicited and if not, why not; (ii) whether small disadvantaged business was

solicited and if not, why not; and (iii) reasons for the failure of responding small businesses to receive the subcontract award.

- d. Records to support such efforts as: (i) contacts with disadvantaged and small business trade associations; (ii) contacts with business development organizations; and (iii) attendance at small and disadvantaged business procurement conferences and trade fairs.
- e. Records to support internal activities to guide and encourage buyers such as: (i) workshops, seminars, training programs, etc.; and (ii) monitoring activities to evaluate compliance.
- f. On a contract-by-contract basis, records to support award data submitted to the Government to include name, address, and size status of subcontractor.
- g. On a contract-by-contract basis, a computer printout of the dollar amount of all awards made identifying small and small disadvantaged vendors.
- h. Buyer's checkoff sheets indicating number of small and disadvantaged business concerns solicited for each award.
- i. Individual small business subcontract plan files.
- j. Semi-annual individual status reports for each subcontract plan.
- k. Quarterly summary subcontracting reports for each federal agency.
- l. Small Business Administration letters of compliance for each small business subcontract plan.

In order to implement this plan in the most effective manner, Calspan Corporation has taken various positive actions and can demonstrate through prior examples that it is making a good faith effort to comply with the spirit and intent of P.L. 95-507, as well as P.L. 99-661, P.L. 100-180 and P.L. 100-656.

1. Calspan Corporation management is kept well informed and fully involved in the company program for utilization of small and small disadvantaged business concerns. At the direction of the General Manager, the SBLO has briefed the approximately forty (40) top managers of Calspan Corporation at one of their monthly staff meetings on the requirements of the various Public Laws cited above. Calspan Corporation maintains a company policy on Utilization of Small and Small Disadvantaged Business Concerns, identified as Procedure 604. (A copy of the procedure is available upon request.)
2. Calspan Corporation and its predecessor company participated in the original "volunteer" program of reporting to the Department of Defense and the Small Business Administration since the plan's inception, and currently continues to file the required reports. We have an annual review by Procurement Specialists from both DCMR and the Small Business Administration attesting to our ongoing good-

faith compliance with the regulations. Senior Management is kept informed on the program activities through a formal reporting system.

3. All buying personnel are kept informed and support the small and small disadvantaged business firms due to a requirement that every purchase over \$250 be documented accordingly. Informal meetings, occasional formal briefings and attendance at seminars keep the small business program highly visible.
4. Calspan Corporation has frequently offered special assistance to small and small disadvantaged businesses, beyond normal business procedures. Some examples are:
 - a. A unique small business concern has built ten (10) prototype Research Safety Vehicles (RSV) under a Calspan subcontract. Because of their size and limited credit capabilities when compared to the costs involved in the program, Calspan gave special consideration by making advanced payments to assist them in keeping the program moving. Further, our Technical Program Manager, Director of Material Services, Purchasing Manager, Subcontracts Administrator and our Small Business Liaison Officer each made at least one trip (some made several) to this subcontractor's facilities in another city, to provide expertise with various problems inherent in Government contracting since this was their first U. S. Government contract.
 - b. The Calspan Purchasing Manager was clearly instrumental in assisting a local minority female in establishing a secretarial service and obtaining a U. S. Government clearance for her employees. Since this business was initiated it has grown into a full service operation providing secretarial, engineering and technical support personnel. Several Government subcontractors in our area now avail themselves of services from this female-owned small disadvantaged entrepreneur, thus aiding the Government's program directly.
 - c. Calspan recently was awarded its first production contract, called the ALAD Program which is a military/chemical detector unit. The alarm is set off when the chemical hits a molded plastic disc and breaks a painted surface in the subtrack of the disc.

The application of the paint is a special process paint mixture of flakes and a special application of same.

This process is proprietary to Calspan.

A small business in Orchard Park, New York has been awarded a contract to mold the plastic disc and has been especially trained by Calspan's technical staff to apply the paint.

An award to a small business for the molded disc for production and options amounts to \$387,342 and of that amount \$193,890 is for the special painting.

If Calspan did not train this small firm on how to apply the special paint, the work would have been performed at Calspan.

Calspan is also advance paying on a predetermined schedule for the work to be performed.

- d. A small disadvantaged woman-owned business in Snyder, New York with which Calspan is presently spending approximately \$750,000 a year.

Arrangements have been made to reduce the payment schedule from forty (40) days to seven (7) days, and payments will be made on a weekly schedule. This process will relieve the firm from borrowing money from the bank to meet payroll and saves them a fourteen (14%) percent interest charge.

- e. Calspan was instrumental in obtaining a distributorship from a major large computer manufacturer for a small disadvantaged business company in Rochester, New York. This was considered a major accomplishment for this company.
- f. Calspan also provides office space in house-services to the Upstate New York Minority Purchasing Council at its location in Buffalo, New York. This office space includes heat, light, janitorial and mail service at no cost.
- g. Calspan's Purchasing Manager has contacted a number of Historically Black Colleges and Universities in an attempt at identifying additional sources in support of the Company's Research and Development efforts. Visits have been arranged to many of these institutions, around the country, to further explore areas of possible cooperation.

Calspan ATC has supported the Buffalo-area Engineering Awareness for Minorities, BEAM, since its inception in 1983 and currently provides twelve (12) professional employees serving as board members and technical advisors. This non-profit organization was established to encourage secondary school minority students to pursue educational and career goals in the fields of engineering and science. For the school year ending 30 June 1989 over five (500) hundred students from the 5th grade through graduate level studies were being mentored by advisors provided by BEAM. Recently, Calspan ATC received an award for outstanding leadership from BEAM.

As further evidence of Calspan's corporate involvement with the small/small disadvantaged program, it should be noted that Calspan's Purchasing Manager is a member of the Board of Directors of the Buffalo Chapter of the Upstate New York Minority Purchasing Council, Inc. Calspan Corporation was the second charter-member company in the Council and contributed to the financial assistance in establishing this chapter. Calspan Corporation provides office space to the "Upstate Minority Purchasing Council" on a rent-free basis. This space provides necessary office space and a conference room which is used to conduct Council business. Calspan's Purchasing Manager has both chaired, and served on the organizational committee, for local annual Small Business Minority Business Trade Fairs sponsored by the Purchasing Management Association in conjunction with the Council. Another staff member has been one of two Calspan representatives participating in U. S. Department of Commerce, Area Small Business Orientation Seminars which were established to acquaint small businesses in the proper procedures required to obtain work for the Government.

5. As noted in our basic subcontracting plan, Calspan Corporation provides adequate and timely consideration to the potentialities of small and small disadvantaged business concerns through its established procedures.
6. Calspan Corporation welcomes the opportunity to discuss subcontracting possibilities with representatives of small and small disadvantaged business firms as a means of expanding its source lists for the various complex items required in the performance of R&D programs.
7. Calspan will, in support of SDB's and in anticipation of subsequent awards, provide copies of the Statement of Work and applicable specifications, MIL specs, security requirements and applicable specifications. Calspan ATC technical personnel will be identified and contact points established for the purpose of answering questions and to provide technical assistance. As requested, FAR and other procurement regulations will be made available to SDB's. As has always been the case, procurement personnel will be available to assist where required.

It must be emphasized however, that Calspan is involved with many programs operating under security classifications and at times, may not be able to provide information to firms which do not have the appropriate security clearances.

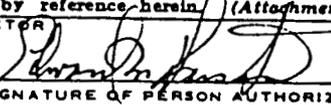
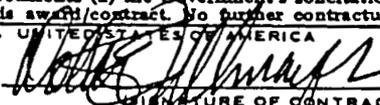
As in the past, Calspan ATC will on a case-by-case basis, review the need, applicability and appropriateness for more advantageous payment terms including possible advance payments and/or short term payments to SDB's.

In summary, we note:

1. Calspan Corporation procurements from small businesses have historically been between 70% to 80% of all procurement activity.
2. Our awards to small disadvantaged businesses have significantly increased over the previous years -- a major accomplishment when you consider that the highly sophisticated nature of our research and development efforts are not easily supported by the average small disadvantaged business concern.

4
 REF 67X. *4 pencils*

Rec'd 9/13/88 67X

Definitized mod P20001 4118189		AWA CONTRACT CLP/pfm/1216c		PAGE 1 OF			
2. DOC INSTRUMENT ID NO. (PIIN) F33657-88-C-2093		3. EFFECTIVE DATE 13 Sep 88		4. REQUISITION/PURCHASE REQUEST/PROJECT NO.			
6. ISSUED BY DEPARTMENT OF THE AIR FORCE AIR FORCE DEV TEST CENTER (AFDTC/PKR) BLDG 350, RM 428 EGLIN AFB FL 32542-5320			7. ADMINISTERED BY DCASMA, Buffalo 1103 Federal Bldg. 111 West Huron Street Buffalo, NY 14202-2392		8. CERTIFIED FOR NATIONAL DEFENSE UNDER DOC REG 2/DMS REG 1 RATING DO-A7		
8. CONTRACTOR NAME AND ADDRESS CALSPAN CORPORATION Advanced Technology Center P.O. Box 400 Buffalo, NY 14225			9. SUBMIT INVOICES (4 copies unless otherwise specified) TO ADDRESS SHOWN IN		CODE S3305A		
11. AUTHORIZED RATE A. PROGRESS PAY B. RECUP			12. CONTRACT PERCENT FEE		13. PAYMENT WILL BE MADE BY		
14. PURCHASE OFFICE POINT OF CONTACT ANY/AIR/AOK			15. SVC/AGENCY Chg P00033		CODE S2202A		
16. CONTRACT ADMINISTRATION DATA A. FAST PAY B. CONTRACT C. ABSTRACT RECIP D. SPL CONT E. CONT ADMIN (1) KIND (2) TYPE ADP POINT PROVISIONS FUNC LMT 8C W			17. SECURITY A. CLAS T		18. DATE OF DD 254 3/11/93 92 OCT21 (Rev. 3)		
19. (RESERVED)			20. DATE SIGNED		21. SURV CRIT C		
22. TOTAL AMT \$75,626,880			23. Authority for using other than full and open competition: PURSUANT TO 10 USC 2304(c)(2); 41 USC 253C(1); 10 USC 2667		Chg P00046 9/9/94		
24. TABLE OF CONTENTS (The following sections marked "X" are contained in the contract.)							
(X)	SEC	DESCRIPTION	PAGE(S)	(X)	SEC	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
X	A	SOLICITATION/CONTRACT FORM	1	X	I	CONTRACT CLAUSES	78
X	B	SUPPLIES OR SERVICES AND PRICES/COSTS	5	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH			
	C	DESCRIPTION/SPECS/WORK STATEMENT		X	J	LIST OF ATTACHMENTS	93
X	D	PACKAGING AND MARKING	38	PART IV - REPRESENTATIONS AND INSTRUCTIONS			
X	E	INSPECTION AND ACCEPTANCE	38		K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
X	F	DELIVERIES OR PERFORMANCE	39		L	INSTRS., CONDS., AND NOTICES TO OFFER	
X	G	CONTRACT ADMINISTRATION DATA	51		M	EVALUATION FACTORS FOR AWARD	
X	H	SPECIAL CONTRACT REQUIREMENTS	60				
CONTRACTING OFFICER WILL COMPLETE BLOCK 25 OR 29, AS APPLICABLE							
25. <input checked="" type="checkbox"/> CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return 3 copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified herein for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)				29. <input type="checkbox"/> AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed herein. This award consummates the contract which consists of the following documents (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.			
26. CONTRACTOR  BY _____ (SIGNATURE OF PERSON AUTHORIZED TO SIGN)				30. UNITED STATES OF AMERICA  BY _____ (SIGNATURE OF CONTRACTING OFFICER)			
27. NAME AND TITLE OF SIGNER (TYPE OR PRINT) Edward M. Weisbeck Director of Contracts		28. DATE SIGNED 13 Sep 88 YMMMD0		31. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) WALTER E. ULLMAYER Contracting Officer		32. DATE SIGNED 880913 YMMMD0	

DUPLICATE ORIGINAL

MAILING DATE SEP 13 1988

PAS: NONE



REDCAP Upgrades Program
Contract F33657-88-C-2093

Eglin REDCAP Program Office
46TW/TSWW
401 W. Choctawhatchee Avenue, Suite 265
Eglin Air Force Base, FL 32542-5724

Program Manager: LT COL Armando V. Villagran
Major Richard Hale
Mr. John Russell

Telephone: (904) 882-3410
Telefax: (904) 882-3460

USAF Onsite Manager: Major Gale Myers
Telephone: (716) 631-6847
Telefax: (716) 631-6722

Eglin REDCAP Contracts Office
AFDTC/PKZ
205 West D Avenue, Suite 428
Eglin Air Force Base, FL 32542-6864

Contracting Officer: Ms. Maureen Preta
Telephone: (904) 882-3377
Telefax: (904) 882-5757

Contracts Specialist: Ms. Kathleen Miller
Telephone: (904) 882-4141
Telefax: (904) 882-5757

Calspan REDCAP Upgrades Program Office
REDCAP Simulator Facility
4455 Genesee Street
Buffalo, NY 14225

Program Manager: Mr. Peter J. Calinski
Telephone: (716) 631-6851
Telefax: (716) 631-6722

Calspan REDCAP Contracts Office
4455 Genesee Street
Buffalo, NY 14224

Sr. Contracts Administrator: Ms. Susan R. Schock
Telephone: (716) 631-6744
Telefax: (716) 631-6993

(Updated 11/30/94)

APPROVAL OF CONTRACT (APR 1984) (FAR 52.204-1)



SAMUEL L. CROUCHER, SES, Assistant
Deputy for Contracting and Manufacturing
Acquisition Systems Division

02 MAR 1990

(NOTE: Pursuant to AF FAR Sup 4.103 and ASD FAR Sup 1.601-92.3, the approval level for this contract including options, if any, is any amount over \$2,000,000.00.) Manual approval level (ASD/PM) IAW AFFARS 4.103.

P00047
10/27/94

C. AMENDMENT OF CONTRACT

Contract F33657-88-C-2093, as amended through P00046, is further amended as follows:

SECTION A - CONTRACT FORM

The total amount of the contract (Block 22 of AFSC Form 701) remains unchanged at \$75,626,880.00.

4. The following is a funding recapitulation (through P00047):

<u>INSTRUMENT</u>	<u>TOTAL AMOUNT OBLIGATED</u>	<u>TOTAL CONTRACT PRICE</u>
BASIC	\$ 400,000.00	\$16,000,000.00
P00001	\$ 4,200,000.00	\$16,000,000.00
P00002	\$ 0.00	\$16,000,000.00
P00003	\$ 3,400,000.00	\$16,000,000.00
PZ0001	\$ 2,400,000.00	\$16,296,418.00
P00005	\$ 383,867.00	\$16,680,285.00
P00006	\$ 61,069.00	\$16,741,354.00
P00009	\$ 2,099,000.00	\$16,741,354.00
P00010	\$ 225,000.00	\$16,741,354.00
P00011	\$ 0.00	\$16,924,725.00
P00008	\$ 0.00	\$17,800,182.00
P00007	\$ 1,645,000.00	\$18,325,454.00
P00012	\$ 968,000.00	\$18,325,454.00
P00004	\$10,384,713.00	\$76,189,845.00
P00013	\$ 1,000,000.00	\$76,189,845.00
P00014	\$ 600,000.00	\$76,189,845.00
P00015	\$ 1,200,000.00	\$76,189,845.00
P00016	\$ 2,000,000.00	\$76,189,845.00
P00019	\$ 6,440,000.00	\$76,189,845.00
P00018	\$ 0.00	\$76,189,845.00
P00020	\$ 0.00	\$76,189,845.00
P00021	\$ 178,550.00	\$76,189,845.00
P00022	\$ 0.00	\$76,189,845.00
P00023	\$ 2,950,000.00	\$76,189,845.00
P00024	\$ 200,000.00	\$76,189,845.00
P00017	\$ 58,000.00	\$48,268,256.00
P00025	\$ 0.00	\$48,268,256.00
P00026	\$ 0.00	\$48,268,256.00
P00027	\$ 500,000.00	\$48,268,256.00
P00028	\$ 3,000,000.00	\$48,268,256.00
P00029	\$ 2,000,000.00	\$48,268,256.00
P00030	\$ 0.00	\$48,268,256.00
P00031	\$ 700,000.00	\$48,268,256.00
P00032	\$ 400,000.00	\$48,268,256.00
P00034	\$ 800,000.00	\$48,268,256.00
P00036	\$ 0.00	\$48,268,256.00
P00035	\$ 600,000.00	\$48,268,256.00
P00037	\$ 400,309.00	\$49,268,565.00
P00033	\$ 0.00	\$49,268,565.00
P00038	\$ 6,600,000.00	\$61,585,241.00
P00039	\$ 75,057.00	\$61,585,241.00
P00040	\$ 3,000,000.00	\$61,585,241.00
P00041	\$ 0.00	\$61,585,241.00
P00042	\$ 1,328,000.00	\$61,585,241.00
P00043	\$ 1,388,676.00	\$61,585,241.00
P00044	\$ 3,064,000.00	\$74,299,801.00
P00045	\$ 500,000.00	\$74,299,801.00
P00046	\$ 827,079.00	\$75,626,880.00
P00047	\$ 5,900,000.00	\$75,626,880.00
TOTAL	\$71,876,320.00	\$75,626,880.00

SECTION A - SOLICITATION/CONTRACT FORM (cont'd)

A-003

EFFECTIVE DATE

Unless otherwise specified herein, the "Effective Date" as used herein shall be the date the Contractor signs. However, if the Contractor conditions the execution of the letter contract and, as a result thereof, the letter contract is revised, the Effective Date shall be the date the revised letter contract, as agreed to by the Contractor and the Contracting Officer, is forwarded by the Contracting Officer for final review and distribution. In that event, the Contracting Officer shall insert the Effective Date on Page 1 hereto. (ASD FAR 52.216-9200)

70B - PART I, SECTION B OF THE SCHEDULE

<u>Item No</u>	<u>Supplies/Services</u>	<u>Quantity</u> <u>Purch Unit</u>	<u>Unit Price</u> <u>Total Item Amount</u>
		Chq. P00007 11/22/89	
		PZ0001 negotiated	\$ 7,424,850
		P00007 credit	(<u>111,794</u>)
		Bal in CLIN 0001	\$ 7,313,056
0001	CLIN Change noun: BM/C3 INTRODUCTORY CLIN acrn: XA pr/mipr data: FY7615-88-01467 descriptive data: CLIN 0001 is modified by deleting the dollars for the Phase I development effort, making CLIN 0001 an introductory/information CLIN for the System Requirements Document (SRD) entitled "SUAWACS BM/C3, 25 Aug 88 and the Statement of Work (SOW) Rev B, 13 Feb 89. The BM/C3 effort is broken out into Subclins 0001AA thru 0001AE. The \$7,313,056.00 has been deleted from CLIN 0001 and included in 0001AA for Phase I price amount. Purchase unit is changed from each to read "Lot".	Sec Class: U Chq. P00004 3/1/90	\$ \$ 7,313,056.00-
0001AA	SubCLIN Establish noun: SUAWACS BM/C3 (PHASE I) acrn: XA nsn: N site codes pqs: S acp: S fob: S pr/mipr data: FY7615-88-01467 descriptive data: IAW the SRD entitled "SUAWACS" BM/C3, 25 Aug 88 and the SOW Rev E, 10 Jan 90, the Contractor shall develop all hardware and software of a SUAWACS BM/C3 Simulator through PDR.	sec class: U 1 LO	\$ \$ 7,313,056.00
0001AB	SubCLIN Change noun: NEW LINKS - S BAND acrn: XA pr/mipr data: FY7621-93-31084+ New Total Quantity: 1 New Total Item Amount: \$ 2,167,013.00	sec class: U 1 LO	\$ \$ 2,103,405.00 \$ 75,599.00- \$ 139,207.00+

Add
3/1/90

Chq.
P00037
2/17/93

Descriptive Data: (AMIS Page 2)

0001AC SubCLIN Change

sec class: U

chg.
P00037
2/17/93

noun: NEW LINKS - UHF

1 \$

acrn: XA

LO \$

2,346,572.00

pr/mipr data: FY7621-93-31084+

\$

922,089.00-

New Total Quantity: 1

New Total Item Amount: \$ 1,556,289.00

\$

131,806.00+

Descriptive Data: (AMIS Page 3)

0001AD

SubCLIN Change

sec class: U

chg. P00037
2/17/93

1 \$

noun: IFF

LO \$

2,609,001.00

acrn: XA

\$

1,309,773.00-

pr/mipr data: FY7621-93-31084+

\$

112,650.00+

New Total Quantity: 1

New Total Item Amount: \$ 1,411,878.00

Descriptive Data: (AMIS Page 4)

0001AE

SubCLIN Change

Sec Class: U

1 \$

noun: PILOT STATIONS

LO \$

4,240,997.00

site code: acp: d

\$

47,657.00-

New Total Quantity: 1

New Total Item Amount: \$ 4,193,340.00

chg. mod
P00017 12/2/91

descriptive data:

CLIN 0001AE is modified to include the Statement-of-Work,
SUPPLEMENT 1, "Restructured REDCAP Upgrade Program"

1 Feb 91, as well as the System Requirements Document (SRD)

SUAWACS BM/C3," 25 Aug 88, and the SOW, REV E, 10 Jan 90,

both already on contract.

SECTION B

0002	CLIN Definitization	Sec Class: U Chq. P20001 4/18/89	\$ 3,053,412.00 \$ 3,053,412.00+
0002	CLIN Change	Sec Class: U Chq. P00004 3/1/90	\$ 3,053,412.00-
	<p>noun: IADS acrn: XA pr/mipr data: FY7615-88-01467</p> <p>descriptive data: CLIN 0002 is modified by deleting the dollars for the Phase I development effort, making CLIN 0002 an introductory/information CLIN for the SRD entitled "Advanced IADS", 25 Aug 88 and the SOW REV B, 13 Feb 89. The IADS effort is broken out into Subclins 0002AA thru 0002AC. The \$3,053,412.00 has been deleted from CLIN 0001 and included in 0001AA for Phase I price amount. Purchase unit is changed from each to read, "LOT".</p>		
0002AA	SubCLIN Establish	sec class: U	1 \$ LO \$ 3,053,412.00
	<p>noun: PHASE I IADS acrn: XA nsn: N site codes pqa: S acp: S fob: S pr/mipr data: FY7615-88-01467</p> <p>descriptive data: IAW the SRD entitled Advanced IADS, 25 Aug 88, and the SOW REV E, 10 Jan 90, the Contractor shall develop all hardware and software of an advanced threat IADS simulation thru PDR.</p>		
0002AB	SubCLIN Change	sec class: U	1 \$ LO \$ 5,760,413.00 \$ 2,055,401.00- \$ 341,265.00+
	<p>noun: ARCHITECTURE acrn: XA pr/mipr data: FY7621-93-31084+ New Total Quantity: 1 New Total Item Amount: \$ 4,046,277.00</p> <p>Descriptive Data: (AMIS Page 5)</p>		

SECTION B

Chg.
PO 0037
2/17/93

0002AC	SubCLIN Change	sec class: U	1	\$	
	noun: NETWORK		LO	\$	10,614,732.00
	acrn: XA			\$	2,859,170.00-
	pr/mipr data: FY7621-93-31084+			\$	248,705.00+
	New Total Quantity:				1
	New Total Item Amount:	\$			8,004,267.00

Descriptive Data: (AMIS Page 6)

SECTION B

Chg. P20001 4/18/89

0003	CLIN Definitization	Sec Class: U	\$	1,418,980.00
			\$	1,418,980.00+

Chg. P00004 3/1/90

0003	CLIN Change	Sec Class: U	\$	
			\$	1,418,980.00-

noun: EW/GCI
acrn: XA
pr/mipr data: FY7615-88-01467

descriptive data:
CLIN 0003 is modified by deleting the dollars for the Phase I development effort, making CLIN 0003 an introductory/information CLIN for the SRD entitled "EW/GCI Radar Simulators" Type A, B or C, 25 Aug 88 and the SOW REV B. 13 Feb 89. The EW/GCI effort is broken out into Subclins 0003AA thru 0003AF. The \$1,418,980.00 has been deleted from CLIN 0003 and included in 0003AA for the Phase I price amount. Purchase unit is changed from each to read "LOT".

0003AA	SubCLIN Establish	sec class: U	1	\$	
			LO	\$	1,418,980.00

Add P00004
3/1/90

noun: PHASE I EW/GCI
acrn: XA nsn: N
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-88-01467

descriptive data:
IAW the SRD entitled "EW/GCI Radar Simulators" Type A, B, or C, 25 Aug 88, and the SOW REV E, 10 Jan 90, the Contractor, under Phase I, shall develop all hardware and software of selected threat EW/GCI simulations through SSR. Noted is that Phase I Radar "C" effort was incorporated under CLIN 0013, (P00005) and is not included in this SubCLIN 0003AA.

0003AB	SubCLIN Change	Sec Class: U		
	noun: OLD RADARS		1	\$
	site code: acp: d		LO	\$ 1,563,561.00
	New Total Quantity:	1		
	New Total Item Amount:	\$634,787.00		
			Chq. P00017	\$ 928,774.00-
			12/2/91	
	descriptive data:			
	CLIN 0003AB is modified to include the Statement-of-Work, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, as well as the System Requirements Document (SRD) "EW/GCI Radar Simulators, Type A, B, or C," 22 Aug 88, and the SOW, REV E, 10 Jan 90, both already on contract.			
0003AC	SubCLIN Change	Sec Class: U	1	\$
	noun: RADAR A		LO	\$ 3,778,153.00
	site code: acp: d			
	New Total Quantity:	1		
	New Total Item Amount:	\$1,616,340.00		
			Chq. P00017	\$ 2,161,813.00-
			12/2/91	
	descriptive data:			
	CLIN 0003AC is modified to include the Statement-of-Work, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, as well as the System Requirements Document (SRD) "EW/GCI Radar Simulators, Type A, B, or C," 22 Aug 88, and the SOW, REV E, 10 Jan 90, both already on contract.			
0003AD	SubCLIN Change	Sec Class: U	1	\$
	noun: RADAR A		LO	\$ 2,775,779.00
	site code: acp: d			
	New Total Quantity:	1		
	New Total Item Amount:	\$ 463,501.00		
			Chq. P00017	\$ 2,312,278.00-
			12/2/91	
	descriptive data:			
	CLIN 0003AD is modified to include the Statement-of-Work, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, as well as the System Requirements Document (SRD) "EW/GCI Radar Simulators, Type A, B, or C," 22 Aug 88, and the SOW, REV E, 10 Jan 90, both already on contract.			

SECTION B

Add
P00004
3/1/90

0003AE	SubCLIN Change	Sec Class: U	1 \$	
			LO \$	2,957,101.00
	noun: RADAR A			
	site code: acp: d			
	New Total Quantity:			0
	New Total Item Amount:			\$ 0

chg. P00017
12/2/91

\$ 2,957,101.00-

descriptive data:

CLIN 0003AE is modified to include the Statement-of-Work,
SUPPLEMENT 1, "Restructured REDCAP Upgrade Program"
1 Feb 91.

0003AF	SubCLIN Change	Sec Class: U	1 \$	
			LO \$	3,284,852.00
	noun: RADAR A			
	site code: acp: d			
	New Total Quantity:			0
	New Total Item Amount:			\$ 0

chg. P00017
12/2/91

\$ 3,284,852.00-

descriptive data:

CLIN 0003AF is modified to include the Statement-of-Work,
SUPPLEMENT 1, "Restructured REDCAP Upgrade Program"
1 Feb 91.

JOB - PART I, SECTION B OF THE SCHEDULE

*Definitized P20001
4/18/89*

<u>Item No</u>	<u>Supplies/Services</u>	<u>Quantity</u> <u>Purch Unit</u>	<u>Unit Price</u> <u>Total Item Amount</u>
0004	CLIN Definitization		\$ \$ 2,965,828.00+

noun: MATERIAL
acrn: XA
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-88-01467
defin mods: BASICT

descriptive data: IN ACCORDANCE WITH THE SOW REV B, 13 FEB 89, SPECIAL CONTRACT REQUIREMENT H-250 AND ATTACHMENT 7, THE CONTRACTOR SHALL UNDER PHASE I, ACQUIRE CRITICAL MATERIAL/COMPONENTS TO SUPPORT EACH SYSTEMS DELIVERY SCHEDULE.

0004	CLIN Change		\$ \$0.00+
------	-------------	--	---------------

*Chg. P00005
6/9/89*

noun: MATERIAL

descriptive data:
IN ACCORDANCE WITH THE SOW REV B, 13 FEB 89, AS AMENDED VIA P00005, 9 JUN 89, SPECIAL CONTRACT REQUIREMENT H-250 AND ATTACHMENT 7, THE CONTRACTOR SHALL UNDER PHASE I, ACQUIRE CRITICAL MATERIAL/COMPONENTS TO SUPPORT EACH SYSTEMS DELIVERY SCHEDULE.

0004	CLIN Change		\$ \$ 2,965,828.00-
------	-------------	--	------------------------

*Chg. P00004
3/1/90*

descriptive data:
CLIN 0004 is modified by deleting the dollars for the Phase I critical material components making CLIN 0004 an introductory/information CLIN for the SOW and Special Contract Requirements H-250, Atch 7 of the contract. The \$2,965,828.00 has been deleted from CLIN 0004 and included in 0004AA for the Phase I price amount.

SECTION B

0004AD SubCLIN Change Sec Class: U 1 \$
 LO \$ 2,719,837.00
 noun: BM/C3 MATERIAL
 site code: acp: d
 New Total Quantity: 1
 New Total Item Amount: \$ 2,009,848.00

*Chg. P00017
12/2/91*

\$ 709,989.00-

descriptive data:
 CLIN 0004AD is modified to include the Statement-of-Work,
 SUPPLEMENT 1, "Restructured REDCAP Upgrade Program"
 1 Feb 91, as well as the SOW, REV E, 10 Jan 90, Contract
 Clause H-250, and ATCH 7, the latter 3 already on contract.

0004AE SubCLIN Change Sec Class: U 1 \$
 LO \$ 5,612,092.00
 noun: BM/C3 MATERIAL
 site code: acp: d
 New Total Quantity: 1
 New Total Item Amount: \$ 257,419.00

*Chg. P00017
12/2/91*

\$ 5,354,673.00-

descriptive data:
 CLIN 0004AE is modified to include the Statement-of-Work,
 SUPPLEMENT 1, "Restructured REDCAP Upgrade Program"
 1 Feb 91, as well as the SOW, REV E, 10 Jan 90, Contract
 Clause H-250, and ATCH 7, the latter 3 already on contract.

0004AF SubCLIN Change Sec Class: U 1 \$
 LO \$ 423,757.00
 noun: FACILITY MOD MATERIAL
 site code: acp: d
 New Total Quantity: 1
 New Total Item Amount: \$ 104,708.00

descriptive data:
 CLIN 0004AF is modified to include the Statement-of-Work,
 SUPPLEMENT 1, "Restructured REDCAP Upgrade Program"
 1 Feb 91, as well as the SOW, REV E, 10 Jan 90, Contract
 Clause H-250, and ATCH 7, the latter 3 already on contract.

0004AG SubCLIN Change Sec Class: U 1 \$
 LO \$ 53,529.00
 noun: MISCELLANEOUS MATERIAL
 site code: acp: d
 New Total Quantity: 1
 New Total Item Amount: \$ 40,272.00

\$ 13,257.00-

descriptive data:
 CLIN 0004AG is modified to include the Statement-of-Work,
 SUPPLEMENT 1, "Restructured REDCAP Upgrade Program"
 1 Feb 91, as well as the SOW, REV E, 10 Jan 90, Contract
 Clause H-250, and ATCH 7, the latter 3 already on contract.

SECTION B

Definitized PZ 0001
4/18/89

0005 CLIN Definitization Sec Class: U \$ 188,050.00+

noun: DATA-ATCH NR 2
acrn: XA
site codes pqa: D acp: D job: D
pr/wipr data: FY/615 88 01467
defia code: BASICT

descriptive data: THE CONTRACTOR SHALL PROVIDE ATTACHED DATA (SEQUENCE # 1001-1022) IN ACCORDANCE WITH THE ATTACHED DD FORM 1423, 10 FEB 89 AND THE SOW REVISION B, 13 FEB 89.

0005 CLIN Change Sec Class: U \$ \$0.00+

noun: DATA - ATCH NR 2

descriptive data:

THE CONTRACTOR SHALL PROVIDE DATA (SEQUENCE #1001-1022) IN ACCORDANCE WITH DD FORM 1423, 10 FEB 89, ATTACHED TO PZ0001, AS AMENDED VIA P00005, 9 JUN 89, AND THE SOW REVISION B, 13 FEB 89, AMENDED VIA P00005, 9 JUN 89 TO INCLUDE 3.3.3 AS PART OF 3.3

chg. P00005
6/9/89

0005 CLIN Change Sec Class: U \$ \$61,069.00+

noun: DATA-ATCH NR 2
acrn: XA :

descriptive data: THE CONTRACTOR SHALL PROVIDE DATA (SEQUENCE NUMBERS 1001-1022) IN ACCORDANCE WITH DD FORM 1423, 10 FEB 89, ATTACHED TO PZ0001 AS AMENDED VIA P00005, 9 JUN 89, AND P00006, AND THE SOW REVISION B, 13 FEB 89, AMENDED VIA P00005, 9 JUN 89, TO INCLUDE 3.3.3. AS PART OF 3.3. THE TOTAL ITEM AMOUNT OF CLIN 0005 IS \$249,119.00

chg. P00006
7/25/89

0005 CLIN Change Sec Class: U 1+ \$ 183,371.00+
LO \$

noun: DATA - ATCH 2
acrn: XA

descriptive data:

The Contractor shall provide data in accordance with DD1423, CDRL items Seq No 1001 - 1022. This change adds SOW para 3.9.4 to the revised Seq No 1002, 21 Oct 89 and to the SOW (Revision "D", 25 Oct 89.)

chg. P00011
11/13/89

SECTION B

F33657-88-C-2093
Page 16

<u>Item No</u>	<u>Supplies/Services</u>	<u>Quantity</u> <u>Purch Unit</u>	<u>Unit Price</u> <u>Total Item Amount</u>
0005	CLIN Change noun: DATA-ATCH 2 acrn: XA nsn: N site codes pqa: D acp: D fob: D pr/mipr data: FY7615-88-01467 descriptive data: The Contractor shall provide data in accordance with DD 1423, CDRL Items 1001 - 1021 and the SOW Rev D, 25 Oct 89, as amended herein to include para 3.14 thru 3.14.3c.	Sec Class: U Chg. P00008 12/18/89 1+ \$ LO \$	800,629.00+
0005	CLIN Change noun: DATA ATCH NR 2 acrn: XA pr/mipr data: FY7615-88-01467 descriptive data: The Contractor shall provide data (Seq #1001-1026) IAW the attached DD Form 1423 (Atch 2) and SOW REV E, 10 Jan 90. All costs associated with the preparation and submission of data for Phase I is \$188,050.00 and for Phase II \$333,334.00 for a total of \$521,384.00 for this CLIN.	Sec Class: U Chg. P00004 3/1/90 1+ \$ LO \$	333,334.00+
0005	CLIN Change noun: DATA ATCH NR 2 site code: acp: d New Total Quantity: New Total Item Amount: \$	Sec Class: U Chg. P00017 12/2/91 1 1,543,731.00	\$ 22,722.00-
0005	CLIN Change noun: DATA ATCH NR 2 acrn: XA site codes pqa: D acp: D fob: D descriptive data: CLIN 0005 is modified to include the requirements of the SOW, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, and the attached DD Forms 1423, ATCH 2 (Seq 1001-1026)	sec class: U \$ \$	
	CLIN 0005 is modified to delete DD Form 1423, CDRL Items 1023, System Security Management Plan, and 1024, Security Vulnerability Analysis, dated 30 Aug 91, Atch 10 to P00017, pgs 48 and 49, only.		

0006 Info CLIN Establish See Class: U
Reference EXHIBIT [A]
noun: DATA

Chg P20001
4/18/89

descriptive data: THE CONTRACTOR SHALL PROVIDE EXHIBIT A DATA (#A001-A017) DD FORM 1423 (EXHIBIT A) AND SOW REV B, 12 FEB 89. ELINS A001-A017 DATA IS \$1,245,298.00, BROKEN OUT BY ELIN BELOW. EXHIBIT ITEMS A0009, A010, A011 AND A017 ARE DEFERRED PER FAR 52.277 7027 AND ARE THEREFORE CURRENTLY NOT PRICED. ELIN A004, A008 AND A016 ARE HEREBY DELETED.

0006 INFO CLIN CHANGE Sec Class: U
REFERENCE EXHIBIT A
noun: DATA

Chg. P00005
6/9/90

descriptive data:
THE CONTRACTOR SHALL PROVIDE EXHIBIT A DATA (#A001-A017) IN ACCORDANCE WITH DD FORM 1423 (EXHIBIT A) AND SOW REV B, 12 FEB 89, AS AMENDED VIA SUPPLEMENTAL AGREEMENT P00005, 9 JUN 89, TO INCLUDE 3.3.3. AS PART OF 3.3. ELINS A001-A017 DATA IS \$1,245,298.00, BROKEN OUT BY ELIN IN P20001. EXHIBIT ITEMS A0009, A010, A011 AND A017 ARE DEFERRED PER FAR 52.277-7027 AND ARE THEREFORE CURRENTLY NOT PRICED. ELINS A004, A008, AND A016 ARE HEREBY DELETED.

0006 Info CLIN Change Sec Class: U
 noun: DATA EXHIBIT A
 acrn: XA
 site codes pqa: D acp: D fob: D
 pr/mipr data: FY7615-88-01467

Chg. P00008
12/18/89

descriptive data:

The Contractor shall provide Exhibit A Data (A001 - A017) in accordance with DD 1423 (Exhibit A) and SOW Rev D, 25 Oct 89, as amended herein. ELINS A001 - A017 data is \$1,245,298.00 as reflected in P20001 and increased by \$74,828.00 in P00008 for a total of \$1,320,126.00. Exhibit items A009, A010, A011 and A017 are deferred per FAR 52.277-7027 and are therefore currently not priced. ELINS A004 and A008 are deleted. ELIN A016 is reinstated herein.

0006 CLIN Change Sec Class: U
 noun: REFERENCE EXHIBIT (A) DATA
 acrn: XA
 pr/mipr data: FY7615-88-01467

Chg. P00004
3/1/90

descriptive data:

The Contractor shall provide EXHIBIT A data (Seq A001-A027) IAW the attached DD Form 1423 (Atch 3, Exhibit A) and SOW REV E, 10 Jan 90. ELIN A008 is deleted and ELIN A016 is in P00008. Phase I \$1,320,126.00 Includes ELIN A016/P00008. Phase II \$1,597,669.00.

0006 CLIN Change Sec Class: U
 noun: REFERENCE EXHIBIT (A) DATA
 site code: acp: d
 New Total Quantity: 1
 New Total Item Amount: \$2,015,340.00

Chg. P00017
12/2/91

descriptive data:

CLIN 0006 is modified to include the requirements of the SOW, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, and the attached DD Forms 1423, ATCH 3, EXHIBIT A (Seq A001-A027)

SECTION B

0007	CLIN Change	Sec Class: U	1	\$	
			LO	\$	637,066.00
	noun: SCIF				
	site code: acp: d				
	New Total Quantity:		1		
	New Total Item Amount: \$				670,105.00

Chg. P00017
12/2/91

\$ 33,039.00+

descriptive data:

CLIN 0007 is modified to include the Statement-of-Work, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, as well as the SOW, 25 Oct 89, and as revised by P00007 already on contract.

0008	CLIN Change	Sec Class: U	1	\$	
			LO	\$	1,285,803.00
	noun: FACILITY MODIFICATION				
	site code: acp: d				
	New Total Quantity:		1		
	New Total Item Amount: \$				1,190,886.00

Chg. P00017
12/2/91

\$ 94,917.00-

descriptive data:

CLIN 0008 is modified to include the Statement-of-Work, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, as well as the SOW, REV E, 10 Jan 90, both already on contract.

0009 Info CLIN Establish Sec Class: U
 noun: SYSTEM INTEGRATION AND TEST
 acrn: XA
 site codes pqa: S acp: S fob: S
 pr/mipr data: FY7615-88-01467

Add
 P00004
 3/1/90

descriptive data:
 The Contractor shall provide the services
 and material called for hereunder to
 perform system integration and test
 IAW the SOW REV E, 10 Jan 90.

Chg.
 P00037
 2/17/93

0009AA SubCLIN Change sec class: U 1 \$
 LO \$ 104,720.00
 \$ 26,676.00+

noun: SYSTEM INTEGRATION
 acrn: XA
 pr/mipr data: FY7621-93-31084+
 New Total Quantity: 1
 New Total Item Amount: \$ 131,396.00

Descriptive Data: (AMIS Page 7)

0009AB SubCLIN Establish sec class: U 1 \$
 LO \$ 52,360.00

noun: ACCEPTANCE TESTING
 acrn: XA nsn: N
 site codes pqa: S acp: S fob: S
 pr/mipr data: FY7615-88-01467

descriptive data:
 The Contractor shall provide the services
 and material called for hereunder to
 perform system testing IAW the SOW
 SOW REV E, 10 Jan 90.

0009AC SubCLIN Change Sec Class: U 1 \$
 LO \$ 2,000,400.00
 \$ 977,095.00-

noun: SIM VAL
 site code: acp: d
 New Total Quantity: 1
 New Total Item Amount: \$ 1,023,305.00

Chg. P00017
 12/2/91

descriptive data:
 CLIN 0009AC is modified to include the Statement-of-Work,
 SUPPLEMENT 1, "Restructured REDCAP Upgrade Program"
 1 Feb 91, as well as the SOW, REV E, 10 Jan 90,
 both already on contract.

SECTION B

70B - PART I, SECTION B OF THE SCHEDULE

<u>Item No</u>	<u>Supplies/Services</u>		<u>Quantity</u>		<u>Unit Price</u>	
			<u>Purch Unit</u>		<u>Total</u>	<u>Item Amount</u>
0013	CLIN Establish	sec class: U	1		\$383,867.00	
			EA		\$383,867.00	

noun: EW/GCI TYPE C RADARS
acrn: XA nsn: N
site codes pqa: S acp: S fob: S
pr/mipr data: FY7615-88-01467

descriptive data:
IN ACCORDANCE WITH THE SRD ENTITLED "EW/GCI
RADAR SIMULATORS, TYPE A, B OR C, 25 AUG 88,
AND SOW REV B, 13 FEB 89, AS AMENDED VIA
P00005, 9 JUN 89, TO INCORPORATE SOW PARA
3.3.3, THE CONTRACTOR SHALL UNDER PHASE I
DEVELOP ALL HARDWARE AND SOFTWARE OF SELECTED
THREAT EW/GCI TYPE C RADAR SIMULATIONS THROUGH
SSR.

*add P00017
12/2/91*

0014	CLIN Establish	Sec Class: U	1	\$	476,509.00	
	noun: DEFINITION/PROPOSAL OF RESTRUCTURE		LO	\$	476,509.00	
	ACRN: XA					
	site codes: pqa:S acp:S fob:S					
	pr/mipr: FY7615-88-01467					

descriptive data:
CLIN 0014 is hereby established for the contractor's effort
as a result of the Stop Work order issued 18 Jan 91,
to define and propose the restructure effort.

Item No	Supplies/Services	Quantity Purch Unit	Unit Price Total Item Amount
0015	Exercise Option CLIN sec class: U noun: OPTION A acrn: XA nsn: N site codes pqa: S acp: S fob: S pr/mipr data: FY7621-93-31092 Descriptive Data: (AMIS Page 2) CLIN 0015 is hereby established in accordance with (IAW) the effort called forth in the SOW, Supplement 1, "Restructured REDCAP Upgrade Program", 1 Feb 91, Attachment 9.	1 LO	\$ 5,761,026.00 \$ 5,761,026.00
0015	CLIN Change sec class: U noun: OPTION A acrn: XA pr/mipr data: FY7621-94-31184 New Total Quantity: 1 New Total Item Amount: \$ 6,384,753.00	Chg. P00038 3/3/93	\$ \$ 623,727.00+
0016	Exercise Option CLIN sec class: U noun: OPTION B acrn: XA nsn: N site codes pqa: S acp: S fob: S pr/mipr data: FY7621-93-31092 Descriptive Data: (AMIS Page 3) CLIN 0016 is hereby established IAW the effort called forth in the SOW, Supplement 1, "Restructured REDCAP Upgrade Program", 1 Feb 91, Attachment 9.	1 LO	\$ 6,555,650.00 \$ 6,555,650.00
0016	CLIN Change sec class: U noun: OPTION B acrn: XA pr/mipr data: FY7621-94-31184 New Total Quantity: 1 New Total Item Amount: \$ 7,259,002.00	Chg P00046 9/9/94	\$ \$ 703,352.00+

0017 Exercise Option CLIN sec class: U 1 \$ 12,714,560.00
LO \$ 12,714,560.00

noun: OPTION C

acrn: XA nsn: N
site codes pqa: S acp: S fob: S
pr/mipr data: FY7621-94-31086

Add
P00017
12/2/91

descriptive data:

CLIN 0017 is hereby established in accordance with (IAW) the effort called forth in the SOW, Supplement 1 "Restructured REDCAP Upgrade Program", 1 Feb 91, Attachment 9.

0017 SubCLIN Del Sch Change sec class: U
acrn: XA
ship to: U

Chg
P00047 1 95SEP30
10/27/94

descriptive data:

Performance shall be complete NLT 30 Sep 95.

0018 Option CLIN Establish Sec Class: U
noun: OPTION D

descriptive data:

CLIN 0018 is hereby established IAW the effort called forth in the SOW, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, ATCH 9 hereof, and Special Contract Requirement H-013, Options, in the Not-to-Exceed (NTE) amount of \$10,500,000.00.

0019 Option CLIN Establish Sec Class: U
noun: OPTION E

descriptive data:

CLIN 0019 is hereby established IAW the effort called forth in the SOW, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, ATCH 9 hereof, and Special Contract Requirement H-013, Options, in the Not-to-Exceed (NTE) amount of \$12,500,000.00.

0020 Option CLIN Establish Sec Class: U
noun: OPTION F

descriptive data:

CLIN 0020 is hereby established IAW the effort called forth in the SOW, SUPPLEMENT 1, "Restructured REDCAP Upgrade Program" 1 Feb 91, ATCH 9 hereof, and Special Contract Requirement H-013, Options, in the Not-to-Exceed (NTE) amount of \$15,500,000.00.

Chg. P20001
4/18/89

70B - PART I, SECTION B OF THE SCHEDULE

Exhibit: A CLIN Ident Exhibit: A001

<u>Item No</u>	<u>Supplies/Services</u>		<u>Quantity</u>	<u>Unit Price</u>	
			<u>Purch Unit</u>	<u>Total Item Amount</u>	
A001	ELIN Definitive Establish	sec class: U	1 LO	N \$	144,097.00
	ELIN Change	Sec Class: U	1+ LO	\$ \$	2,097.00+
	noun: SYSTEM/SEGMENT SPECIFICATION acrn: XA site codes pqa: D acp: D fob: D pr/mipr data: FY7615-88-01467				
	descriptive data: System/Segment specifications in accordance with EXHIBIT A001 (DI CMAN 80008A/T) Phase I \$144,097.00, Phase II \$2,097.00.				
	ELIN Change	Sec Class: U		\$ \$	21,422.00+
	noun: SYSTEM/SEGMENT SPECIFICATION New Total Quantity: 1 New Total Item Amount: \$ 167,616.00				
	descriptive data: ELIN A001 is modified IAW EXHIBIT A001, Attachment 11 hereof.				
A002	ELIN Definitive Establish	sec class: U	1 LO	N \$	287,831.00
	ELIN Change	Sec Class: U	1+ LO	\$ \$	7,743.00+
	noun: SYSTEM/SEGMENT DESIGN DOCUMENT acrn: XA site codes pqa: D acp: D fob: D pr/mipr data: FY7615-88-01467				
	descriptive data: System/Segment Design Document IAW Exhibit A002 (DI CMAN 80534) Phase I \$287,831.00, Phase II \$7,743.00.				
	ELIN Change	Sec Class: U		\$ \$	9,645.00+
	noun: SYSTEM/SEGMENT DESIGN DOCUMENT New Total Quantity: 1 New Total Item Amount: \$ 305,219.00				
	descriptive data: ELIN A002 is modified IAW EXHIBIT A002, Attachment 11 hereof.				

Chg. P00004
3/1/90

Chg. P00017
12/2/91

Chg. P00004
3/1/90

Chg. P00017
12/2/91

A003 ELIN Definitive Establish sec class: U

1 N
LO \$ 425,344.00

P2001
4/18/89

ELIN Change Sec Class: U

1+ \$
LO \$ 64,956.00+

Chg.
P00004
3/1/90

noun: CONFIGURATION ITEM DEVELOPMENT SPEC
acrn: XA
pr/mipr data: FY7615-88-01467
site codes pqa: D acp: D fob: D

descriptive data: Configuration Item Development
Specification IAW Exhibit A003 (DI-E-3102A) Phase I
\$425,344.00, Phase II \$64,956.00.

ELIN Change Sec Class: U

\$
\$ 37,432.00+

Chg.
P00017
12/2/91

noun: CONFIGURATION ITEM DEV SPEC
New Total Quantity: 1
New Total Item Amount: \$ 527,732.00

descriptive data:
ELIN A003 is modified IAW EXHIBIT A003, Attachment 11 hereof.

A004 ELIN Establish sec class: U

1 \$
LO \$ 3,815.00

Chg.
P2001
4/18/89

noun: SPECIFICATION CHANGE NOTICE
acrn: XA nsn: N
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-88-01467

descriptive data:
Specification Change Notice (SCN) Notice of
IAW Exhibit A004 (DI-CMAN-80643)

ELIN Change Sec Class: U

\$
\$ 3,785.00+

Chg. P00017
12/2/91

noun: SPECIFICATION CHANGE NOTICE
New Total Quantity: 1
New Total Item Amount: \$ 7,600.00

descriptive data:
ELIN A004 is modified IAW EXHIBIT A004, Attachment 11 hereof.

SECTION B

A005 ELIN Definitive Establish sec class: U

Chg.
P20001
4/18/89

	1	N	
	LO	\$	185,492.00

ELIN Change Sec Class: U

	1+	\$	
	LO	\$	188,620.00+

Chg.
P00004
3/1/90

noun: DRAWINGS, ENGRG AND ASSOC, LISTS
acrn: XA
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-88-01467

descriptive data:
Drawings, Engineering and Associated Lists
(Level 2 drawing package) IAW Exhibit A005
(DI-E-7031/T) Phase I \$79,601, Phase II \$188,620.00

ELIN Change Sec Class: U

	\$	
	\$	231,112.00-

noun: DRAWINGS, ENGRG & ASSOC LISTS
New Total Quantity: 1
New Total Item Amount: \$ 143,000.00

Chg.
P00011
12/2/91

descriptive data:
ELIN A005 is modified IAW EXHIBIT A005, Attachment 11 hereof.

A006 ELIN Definitive Establish sec class: U

Chg.
P20001
4/18/89

	1	N	
	LO	\$	43,175.00

ELIN Change Sec Class: U

	1+	\$	
	LO	\$	68,944.00+

Chg.
P00004
3/1/90

noun: SOFTWARE DESIGN DOCUMENT
acrn: XA
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-88-01467

descriptive data:
Software Design Document IAW Exhibit A006
(DI-MCCR-80012A) Phase I \$43,175.00, Phase II \$68,944.00.

ELIN Change Sec Class: U

	\$	
	\$	

noun: SOFTWARE DESIGN DOCUMENT

Chg.
P00017
12/2/91

descriptive data:
ELIN A006 is modified IAW EXHIBIT A006, Attachment 11 hereof.

A007 ELIN Definitive Establish sec class: U 1 N
 LO \$ 17,868.00
 ELIN Change Sec Class: U 1+ \$
 LO \$ 5,613.00+ Chg. P00004 3/1/90
 noun: SOFTWARE TEST PLAN
 acrn: XA
 site codes pqa: D acp: D fob: D
 pr/mipr data: FY7615-88-01467

descriptive data:
 Software Test Plan IAW Exhibit A007
 (DI-MCCR-80014A/T) Phase I \$17,868.00, Phase II \$5,613.00.

*Chg. P00017
12/2/91*

ELIN Change Sec Class: U \$
 \$ 9,481.00-
 noun: SOFTWARE TEST PLAN
 New Total Quantity: 1
 New Total Item Amount: \$ 14,000.00

descriptive data:
 ELIN A007 is modified IAW EXHIBIT A007, Attachment 11 hereof.

A009 ELIN Establish sec class: U 1 \$
 LO \$ 33,571.00
 noun: COMPUTER SYSTEM OPER'S MANUAL
 acrn: XA nsn: N
 site codes pqa: D acp: D fob: D
 pr/mipr data: FY7615-88-01467

*Chg
P00004
3/1/90*

descriptive data:
 Computer System Operators Manual, IAW Exhibit A009
 (DI-MCCR-80018A)

*Chg.
P00017
12/2/91*

ELIN Change Sec Class: U \$
 \$ 18,671.00-
 noun: COMPUTER SYSTEM OPER'S MANUAL
 New Total Quantity: 1
 New Total Item Amount: \$ 14,900.00

descriptive data:
 ELIN A009 is modified IAW EXHIBIT A009, Attachment 11 hereof.

chg. P20001
4/18/89

A012	ELIN Definitive Establish	sec class: U	1	N	
			LO	\$	79,601.00
	ELIN Change	Sec. Class: U	1+	\$	
			LO	\$	9,034.00+

noun: SOFTWARE REQUIREMENTS SPEC
acrn: XA
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-88-01467

chg. P00004
3/1/90

descriptive data:
Software Req Specification IAW Exhibit A012
(DI-MCCR-80025A/T) Phase I \$79,601, Phase II \$9,034.00.

	ELIN Change	Sec Class: U		\$	
				\$	26,926.00+
	noun: SOFTWARE REQUIREMENTS SPEC				
	New Total Quantity:		1		
	New Total Item Amount: \$				115,561.00

chg. P00017
12/2/91

descriptive data:
ELIN A012 is modified IAW EXHIBIT A012, Attachment 11 hereof.

chg.
PZ0001
4/18/89

A013	ELIN Definitive Establish	sec class: U	1	N	
			LO	\$	34,524.00
	ELIN Change	Sec Class: U	1+	\$	
			LO	\$	1,414.00+

noun: INTERFACE REQUIREMENTS SPEC
acrn: XA nsn:
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-88-01467

chg.
P00004
3/1/90

descriptive data:
Interface Req Specification IAW Exhibit A013
(DI-MCCR-80026A) Phase I \$34,524.00, Phase II \$1,414.00.

	ELIN Change	Sec Class: U		\$	
				\$	21,938.00-
	noun: INTERFACE REQUIREMENTS SPEC				
	New Total Quantity:		1		
	New Total Item Amount: \$				14,000.00

chg. P00017
12/2/91

descriptive data:
ELIN A013 is modified IAW EXHIBIT A013, Attachment 11 hereof.

A014 ELIN Definitive Establish sec class: U 1 N
 LO \$ 21,651.00
 ELIN Change Sec Class: U 1+ \$
 LO \$ 17,160.00+ *Chq. P00004 3/1/90*

noun: INTERFACE DESIGN DOCUMENT
 acrn: XA
 site codes pqa: D acp: D fob: D
 pr/mipr data: FY7615-88-01467

descriptive data:
 Interface Design Document IAW Exhibit A014
 (DI-MCCR-80027A) Phase I \$21,651.00, Phase II \$17,160.00.

ELIN Change Sec Class: U \$
 \$

noun: INTERFACE DESIGN DOCUMENT

descriptive data:
 ELIN A014 is modified IAW EXHIBIT A014, Attachment 11 hereof.

Chq. P00017 12/2/91

Chq. PZ0001 4/18/89

A015 ELIN Definitive Establish sec class: U 1 N
 LO \$ 5,715.00
 ELIN Change Sec Class: U 1+ \$
 LO \$ 911.00+ *Chq. P00004 3/1/90*

noun: PROGRAM PARTS SELECTION LIST (PPSL)
 acrn: XA
 site codes pqa: D acp: D fob: D
 pr/mipr data: FY7615-88-01467

descriptive data:
 Program Parts Selection List IAW Exhibit A015
 (DI-MISC-80072/T) Phase I \$5,715.00, Phase II \$911.00.

ELIN Change Sec Class: U \$
 \$

noun: PROGRAM PARTS SELECTION LIST (PPSL)

descriptive data:
 ELIN A015 is modified IAW EXHIBIT A015, Attachment 11 hereof.

Chq. P00017 12/2/91

SECTION B

F33657-88-C-2093
Page 31

Add
P00008
12/18/89

A016 ELIN Establish sec class: U 1 \$
LO \$ 74,828.00
noun: TECHNICAL REPORT
acrn: XA nsn: N
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-88-01467

descriptive data:
Technical Report-Study/Services Contract in accordance with
Exhibit A016 (DI-A-5029) (Atch #3).

Add
P00004
3/1/90

A017 ELIN Establish sec class: U 1 \$
LO \$ 67,323.00
noun: R&D EQUIPMENT INFO REPORT
acrn: XA nsn: N
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-88-01467

descriptive data:
R&D Equipment Info Report IAW Exhibit A017
(DI-S-30599)

ELIN Change Sec Class: U \$
\$ 42,579.00-
noun: R&D EQUIPMENT INFO REPORT
New Total Quantity: 1
New Total Item Amount: \$ 24,744.00

chg. P00017
12/2/91

descriptive data:
ELIN A017 is modified IAW EXHIBIT A017, Attachment 11 hereof.

A018 ELIN Establish sec class: U 1 \$
LO \$ 221,664.00

noun: CONFIG ITEM PRODUCT FUNCTION SPEC
acrn: XA nsn: N
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-88-01467

add
P00004
3/1/90

descriptive data:
Configuration Item Product Function Spec
IAW Exhibit A018 (DI-E-3132)

chg. P00017
12/2/91

ELIN Change Sec Class: U \$
\$ 109,999.00-

noun: CONFIG ITEM PRODUCT FCN SPEC
New Total Quantity: 1
New Total Item Amount: \$ 111,665.00

descriptive data:
ELIN A018 is modified IAW EXHIBIT A018, Attachment 11 hereof.

add
P00004
3/1/90

A019 ELIN Establish sec class: U 1 \$
LO \$ 329,889.00

noun: SOFTWARE TEST DESCRIPTION
acrn: XA nsn: N
site codes pqa: D acp: D fob: D
pr/mipr data: FY7615-88-01467

descriptive data:
Software Test Description
IAW Exhibit A019 (DI-MCCR-80015A)

chg. P00017
12/2/91

ELIN Change Sec Class: U \$
\$ 218,261.00-

noun: SOFTWARE TEST DESCRIPTION
New Total Quantity: 1
New Total Item Amount: \$ 111,628.00

descriptive data:
ELIN A019 is modified IAW EXHIBIT A019, Attachment 11 hereof.

A024 ELIN Establish sec class: U 1 \$ 6,542.00
 LO \$

noun: EQUIP TEST (NON-SYS) PLAN SIMVAL TEST
 acrn: XA nsn: N
 site codes pqa: D acp: D fob: D
 pr/mipr data: FY7615-88-01467

add
 P00004
 3/1/90

descriptive data:
 Equipment Test Plan (Non-System) Simval Test
 Requirements IAW Exhibit A024 (DI-T-3709A/T)

ELIN Change Sec Class: U \$ 401.00-
 \$

noun: EQ TEST (NON-SYS) PLAN SIMVAL TEST
 New Total Quantity: 1
 New Total Item Amount: \$ 6,141.00

chg. P00017
12/2/91

descriptive data:
 ELIN A024 is modified IAW EXHIBIT A024, Attachment 11 hereof.

Add
P00004
3/1/90

A025 ELIN Establish sec class: U 1 \$ 316,964.00
 LO \$

noun: TEST PROCEDURES
 acrn: XA nsn: N
 site codes pqa: D acp: D fob: D
 pr/mipr data: FY7615-88-01467

descriptive data:
 Test Procedures IAW Exhibit A025 (DI-NDTI-80603)

Chg. P00017
12/2/91

ELIN Change Sec Class: U \$ 202,416.00-
 \$

noun: TEST PROCEDURES
 New Total Quantity: 1
 New Total Item Amount: \$ 114,548.00

descriptive data:
 ELIN A025 is modified IAW EXHIBIT A025, Attachment 11 hereof.

A026	ELIN Establish	sec class: U	1 \$	
			LO \$	66,762.00

noun: MASTER TEST PLAN/PROG TEST PLAN
 acrn: XA nsn: N
 site codes pqa: D acp: D fob: D
 pr/mipr data: FY7615-88-01467

descriptive data:
 Master Test Plan/Program Test Plan IAW Exhibit A026 (DI-T-30714)

*chg. P00017
12/2/91*

ELIN Change	Sec Class: U	\$	
		\$	41,542.00-

noun: MASTER TEST PLAN/PROG TEST PLAN
 New Total Quantity: 1
 New Total Item Amount: \$25,220.00

descriptive data:
 ELIN A026 is modified IAW EXHIBIT A026, Attachment 11 hereof.

*add P00004
2/1/90*

A027	ELIN Establish	sec class: U	1 \$	
			LO \$	4,484.00

noun: RECOMMENDED SPARE PARTS LIST
 acrn: XA nsn: N
 site codes pqa: D acp: D fob: D
 pr/mipr data: FY7615-88-01467

descriptive data:
 Recommended Spare Parts List IAW Exhibit A027
 (DI-ILSS-80134)

*chg. P00017
12/2/91*

ELIN Change	Sec Class: U	\$	
		\$	2,771.00-

noun: RECOMMENDED SPARE PARTS LIST
 New Total Quantity: 1
 New Total Item Amount: \$ 1,713.00

descriptive data:
 ELIN A027 is modified IAW EXHIBIT A027, Attachment 11 hereof.

CR9
P00025
12/24/91

SECTION C - Description/Specs/Work Statement, of the above numbered contract is modified by the addition of the following Baseline Specifications:

The following functional configuration identification is hereby established as the functional baseline for the Upgraded REDCAP Simulator System/Segments per SOW paragraph 3.7.2.1 and clause H-003, SECTION H:

- SS00A305503C System Specification for the Upgraded REDCAP Simulator, 5 Apr 91
- SS00A305503C Supplement to System Specification for the Upgraded REDCAP Simulator, (S/NF/WN), 1 May 91
- SS00A305543B Segment Specification for the BMC3 Simulator of the Upgraded REDCAP Simulator, 19 Apr 91
- SS00A305543A Supplement to Segment Specification for the BMC3 Simulator of the Upgraded REDCAP Simulator, (S/NF/WN), 1 May 91
- SS00A305573C Segment Specification for the Architecture Segment of the Upgraded REDCAP Simulator, 18 Apr 91
- SS00A305504D Segment Specification for the Integrated Air Defense System (IADS) Network (NET) Simulation of the Upgraded REDCAP Simulator, 8 Apr 91
- SS00A305504A Supplement to Segment Specification for the Integrated Air Defense System (IADS) Network (NET) Simulation of the Upgraded REDCAP Simulator, 3 Nov 89
- SS00A305536C Segment Specification for the EW/GCI Segment of the Upgraded REDCAP Simulator, 19 Apr 91

SECTION D - PACKAGING AND MARKING

D-041 COMMERCIAL PACKAGING

Preservation, packaging, packing and marking of the supplies and data called for hereunder shall be in accordance with Contractor's standard commercial practice.

SECTION E - INSPECTION AND ACCEPTANCE

A. 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

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

52.246-8 INSPECTION OF RESEARCH AND DEVELOPMENT - COST
REIMBURSEMENT (APR 1984)

II. DEPARTMENT OF DEFENSE SUPPLEMENT (48 CFR CHAPTER 2) CLAUSES

52.246-7000 MATERIAL INSPECTION AND RECEIVING REPORT (DEC 1969)

B. Additional Full Text Clauses

E-061 INSPECTION AND ACCEPTANCE

(a) Except as provided below, final inspection and acceptance by the Government of the Items set forth herein shall be at destination.

*Chg. P00017
12/2/91*

(b) Inspection and acceptance of data shall be in accordance with the Contract Data Requirements List (CDRLs) attached hereto, as implemented by Air Force Regulation 310-1, dated 8 March 1983, and as supplemented by AFSC Supplement 1, dated 29 November 1984, and by ASD Supplement 1, dated 14 June 1986. In those instances where the symbol "LT" appears in the block which would otherwise designate the point for final inspection and acceptance, the place for such final inspection and acceptance shall be at the office designated as the "Technical Office."

(c) Services shall be finally inspected and accepted by the Government at the place(s) of performance.

SECTION F - DELIVERIES OR PERFORMANCE

A. 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

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

- 52.212--13 STOP WORK ORDER (APR 1984)
ALTERNATE I (APR 1984)
- 52.247--29 F.O.B. ORIGIN (JUN 1988)
(In accordance with AFSC FAR Sup 47.301-1(c)(3), the F.O.B. location is Calspan Corp., Buffalo, NY.)
- 52.247--55 F.O.B. POINT FOR DELIVERY OF GOVERNMENT-FURNISHED PROPERTY (APR 1984)

B. Additional Full Text Clauses

F-081 DELIVERIES OR PERFORMANCE

The Contractor shall deliver/perform the Item(s) called for hereunder in accordance with the Line Item(s) set forth below. The abbreviation "U" as may be used hereunder means either "Unknown" or "To Be Determined." The abbreviation "ASREQ" as may be used hereunder means "As Required Herein." The abbreviation "ARO," if used hereunder, means "after receipt by the Contractor of an executed copy of this contract."

70F - PART 1, SECTION F OF THE SCHEDULE

Chg.
P20001
4/18/89

Item No	Supplies Schedule Data	Delivery Schedule	
		Quantity	Date
0001	CLIN Del Sch Definitization acrn: XA ship to: U		
		1	90JAN13

descriptive data:
DELIVER IN PLACE AT THE REDCAP FACILITY.

70F - PART I, SECTION F OF THE SCHEDULE

<u>Item No</u>	<u>Supplies Schedule Data</u>	<i>Chg. P00017 12/2/91</i>	<u>Delivery Schedule</u>	
			<u>Quantity</u>	<u>Date</u>
0001AB	SubCLIN Del Sch Change ship to: U	Sec Class: U	1	93APR30
0001AC	SubCLIN Del Sch Change ship to: U	Sec Class: U	1	93APR30
0001AD	SubCLIN Del Sch Change ship to: U	Sec Class: U	1	93APR30
0001AE	SubCLIN Del Sch Change ship to: U	Sec Class: U	1	93APR30
0002AB	SubCLIN Del Sch Change ship to: U	Sec Class: U	1	93APR30
0002AC	SubCLIN Del Sch Change ship to: U	Sec Class: U	1	93APR30
0003AB	SubCLIN Del Sch Change ship to: U	Sec Class: U	1	93APR30
0003AC	SubCLIN Del Sch Change ship to: U	Sec Class: U	1	93APR30

70F - PART I, SECTION F OF THE SCHEDULE

<u>Item No</u>	<u>Supplies Schedule Data</u>	<u>Sec Class</u>	<u>Delivery Schedule</u>
			<u>Quantity</u> <u>Date</u>
0002	CLIN Del Sch Definitization acrn: XA ship to: U	Sec Class: U	chg. P20001 4/18/89 1 90JAN13
	descriptive data: DELIVER IN PLACE AT REDCAP FACILITY.		
0002AA	SubCLIN Del Sch Establish acrn: XA ship to: U	Sec Class: U	Add P00004 3/1/90 1 90FEB28
	descriptive data: Delivery schedule is extended from 13 Jan 90 to 28 Feb 90.		
0002AB	SubCLIN Del Sch Establish acrn: XA ship to: U	Sec Class: U	1 94JUN30
0002AC	SubCLIN Del Sch Establish acrn: XA ship to: U	Sec Class: U	1 94JUN30

SECTION F - DELIVERIES OR PERFORMANCE (cont'd)

<u>Item No</u>	<u>Supplies Schedule Data</u>	<u>Delivery Schedule</u>
		<u>Quantity</u> <u>Date</u>
0003	CLIN Del Sch Definitization acrn: XA ship to: U descriptive data: DELIVER IN PLACE AT REDCAP FACILITY.	1 90JAN13
		<i>Chg. P20001 4/18/89</i>
0003AA	SubCLIN Del Sch Establish acrn: XA ship to: U descriptive data: Delivery schedule is extended from 13 Jan 90 to 28 Feb 90.	1 90FEB28
		<i>add P00004 3/1/90</i>
0003AB	SubCLIN Del Sch Establish acrn: XA ship to: U	1 94JUN30
0003AC	SubCLIN Del Sch Establish acrn: XA ship to: U	1 94JUN30
0003AD	SubCLIN Del Sch Change ship to: U	1 93APR30
		<i>Chg. P00017 12/2/91</i>
0003AE	SubCLIN Del Sch Change ship to: U	1 93APR30
0003AF	SubCLIN Del Sch Change ship to: U	1 93APR30

SECTION F - DELIVERIES OR PERFORMANCE (cont'd)

Chg. P20001
4/18/89

0004 CLIN Del Sch Definitization Sec Class: U
acrn: XA
ship to: U
1 90JAN13

descriptive data:
DELIVER IN PLACE AT THE REDCAP FACILITY.

0004AA SubCLIN Del Sch Establish Sec Class: U
acrn: XA
ship to: U
1 90FEB28

Add
P00004
3/1/90

descriptive data:
Delivery schedule is extended from 13 Jan 90
to 28 Feb 90.

0004AB SubCLIN Del Sch Change Sec Class: U
ship to: U
1 93APR30

Chg. P00017
12/2/91

0004AC SubCLIN Del Sch Change Sec Class: U
ship to: U
1 93APR30

0004AD SubCLIN Del Sch Change Sec Class: U
ship to: U
1 93APR30

0004AE SubCLIN Del Sch Change Sec Class: U
ship to: U
1 93APR30

0004AF SubCLIN Del Sch Change Sec Class: U
ship to: U
1 93APR30

0004AG SubCLIN Del Sch Change Sec Class: U
ship to: U
1 93APR30

SECTION F - DELIVERIES OR PERFORMANCE (Cont'd)

0005	CLIN Del Sch Change ship to: U	Sec Class: U	<i>Chg. P00017 12/2/91</i>	1	ASREQ
	descriptive data: Delivery as reflected in Attachment 2 CDRLS				
0007	CLIN Del Sch Change ship to: U	Sec Class: U		1	92MAR01
0008	CLIN Del Sch Change ship to: U	Sec Class: U		1	93SEP30
0009AA	SubCLIN Del Sch Change ship to: U	Sec Class: U		1	93SEP30
0009AB	SubCLIN Del Sch Change ship to: U	Sec Class: U		1	93SEP30
0009AC	SubCLIN Del Sch Change ship to: U	Sec Class: U		1	93SEP30
0013	CLIN Del Sch Establish acrn: XA ship to: U	Sec Class: U	<i>Chg. P00005 6/9/89</i>	1	90APR30
	descriptive data: DELIVER IN PLACE AT REDCAP FACILITY.				
0014	CLIN Del Sch Est ship to: U	Sec Class: U	<i>Add P00017 12/2/91</i>	1	91SEP30

SECTION F - DELIVERIES OR PERFORMANCE

PART I, SECTION F OF THE SCHEDULE

<u>Item No</u>	<u>Supplies Schedule Data</u>	<u>Delivery Quantity</u>	<u>Schedule Date</u>
0015	CLIN Del Sch Change acrn: XA ship to: U descriptive data: Performance shall be complete NLT 30 Sep 94.	1	ASREQ
		<i>Chg.</i> P00038 3/3/93	
0016	CLIN Del Sch Change acrn: XA ship to: U descriptive data: Performance shall be complete NLT 30 Sep 94.	1	ASREQ
0017	CLIN Del Sch Establish acrn: XA ship to: U descriptive data: Performance shall be complete no later than (NLT) 18 months after effective date of this Supplemental Agreement.	1	ASREQ
0017	SubCLIN Del Sch Change acrn: XA ship to: U descriptive data: Performance shall be complete NLT 30 Sep 95.	1	95SEP30
		Chg P00047 10/27/94	

70F - PART I, SECTION F OF THE SCHEDULE

Exhibit: A CLIN Ident Exhibit: 0006

Chg.
PO8017
12/2/91

Delivery Schedule
Quantity Date

<u>Item No</u>	<u>Supplies Schedule Data</u>		<u>Quantity</u>	<u>Date</u>
A001	ELIN Del Sch Change ship to: U descriptive data: Delivery IAW EXHIBIT A001.	Sec Class: U	1	ASREQ
A002	ELIN Del Sch Change ship to: U descriptive data: Delivery IAW EXHIBIT A002.	Sec Class: U	1	ASREQ
A003	ELIN Del Sch Change ship to: U descriptive data: Delivery IAW EXHIBIT A003.	Sec Class: U	1	ASREQ
A004	ELIN Del Sch Change ship to: U descriptive data: Delivery IAW EXHIBIT A004.	Sec Class: U	1	ASREQ
A005	ELIN Del Sch Change ship to: U descriptive data: Delivery IAW EXHIBIT A005.	Sec Class: U	1	ASREQ
A006	ELIN Del Sch Change ship to: U descriptive data: Delivery IAW EXHIBIT A006.	Sec Class: U	1	ASREQ
A007	ELIN Del Sch Change ship to: U descriptive data: Delivery IAW EXHIBIT A007.	Sec Class: U	1	ASREQ

SECTION F

A009	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A009.			
A010	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A010.			
A011	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A011.			
A012	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A012.			
A013	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A013.			
A014	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A014.			

Chg.
PO0017
12/2/91

SECTION F

A015	ELIN Del Sch Change ship to: U	Sec Class: U	1 ASREQ
	descriptive data: Delivery IAW EXHIBIT A015.	Chg. PO0017 12/2/91	
A016	ELIN Del Sch Establish acrn: XA ship to: U	Sec Class: U	1 90AUG31
	descriptive data: Delivery to be in accordance with Exhibit A016.	Chg. P00008 12/18/89	
A017	ELIN Del Sch Change ship to: U	Sec Class: U	1 ASREQ
	descriptive data: Delivery IAW EXHIBIT A017.	Chg. PO0017 12/2/91	
A018	ELIN Del Sch Change ship to: U	Sec Class: U	1 ASREQ
	descriptive data: Delivery IAW EXHIBIT A018.		
A019	ELIN Del Sch Change ship to: U	Sec Class: U	1 ASREQ
	descriptive data: Delivery IAW EXHIBIT A019.		
A020	ELIN Del Sch Change ship to: U	Sec Class: U	1 ASREQ
	descriptive data: Delivery IAW EXHIBIT A020.		
A021	ELIN Del Sch Change ship to: U	Sec Class: U	1 ASREQ
	descriptive data: Delivery IAW EXHIBIT A021.		

SECTION F

A022	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A022.			
A023	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A023.			
A024	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A024.			
A025	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A025.			
A026	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A026.			
A027	ELIN Del Sch Change ship to: U	Sec Class: U	1	ASREQ
	descriptive data: Delivery IAW EXHIBIT A027.			

Chg.
P00017
(2/2/91)

F-083 REQUESTS FOR SHIPPING INSTRUCTIONS

Requests for shipping instructions for the supplies, other than data, called for hereunder shall be made to the address specified below not later than thirty (30) days prior to the date on which any of the articles are ready for shipment:

Aeronautical Systems Division (AFSC)
ATTN: ASD/RWKEA
Wright-Patterson AFB, Ohio 45433-6503
Contract No. F33657-88-C-2093

SECTION G - CONTRACT ADMINISTRATION DATA

G-096 INVENTIONS REPORTS ADDRESS

The Administrative Contracting Officer, upon receipt of invention reports called for by the Patent Rights clause of the contract, shall forward same to:

HQ Air Force Contract Law Center
Directorate of Acquisition Law Services
Patent and Data Division
AFCLC/JANP
Wright-Patterson AFB, Ohio 45433-5000

G-097 DD FORM 254

DD Form 254, Contract Security Classification Specification, as set forth in SECTION J hereof, is applicable hereto.

G-098 OTHER CONTRACT ADMINISTRATIVE DATA

PURCHASE REQUEST & INITIATOR: FY7615-88-01467
Ronald J. Stauffer, Capt., USAF, ASD/RWWQ

NSC: AC64

MONITORING OFFICE: ASD/RWKLA

FINANCE OFFICER - Send payment for Contractor invoices to the following remittance address:

Chg.
ARZ999
2/13/92

1a. FOR ALL NON-EFT PAYMENTS MADE BY DFAS - COLUMBUS/BONNER HILL DIVISION, THE REMIT TO ADDRESS AS FOLLOWS:

CALSPAN CORPORATION
P.O. BOX 361533
COLUMBUS, OH 43236-1534

1b. FOR ALL NON-EFT PAYMENTS MADE BY OTHER OFFICES, THE REMIT TO ADDRESS IS AS FOLLOWS:

CALSPAN CORPORATION
P.O. BOX 72906
CHICAGO, IL 60673-7906

1c. FOR ALL EFT PAYMENTS, THE REMIT TO ADDRESS IS AS FOLLOWS:

BANK: THE FIRST NATIONAL BANK OF CHICAGO
BANK LOCATION: CHICAGO, IL
ABA NUMBER: 071000013
ACCOUNT NAME: ARVIN INDUSTRIES, INC.
ACCOUNT NUMBER: 5008697

TELEGRAPHIC ABBREVIATION
OF FINANCIAL INSTITUTION: FIRST CHGO

Accounting Classification Data is as set forth below:

ACRN	Acct Class data	Appropriation/Lmt Subhead/CPN Recip DODAAD Supplemental Accounting Classification	Obligation: Amount
0A	ACCOUNT UNCLASSIFIED	5783600 298 4720 641627 000040 00000 64738F 595600	F95600 \$ 400,000.00
	pr/mipr data: FY7615-88 01467		4,200,000.00 Add. mod. P00001 <i>(ajb)</i> 9/29/88
		Add. mod. P00003 11/9/88 <i>(ajb)</i>	
AB	ACCOUNT ESTABLISH UNCLASSIFIED	5793600 299 4720 641627 000040 00000 64270F 595600	F95600 \$ 3,400,000.00+
	pr/mipr data: FY7615-88-01467		
			Add P20001 4/18/89 2,400,000.00+
			Add P00005 6/89 383,867.00+
	descriptive data: FUND CITE 5793600 299 4720 641627 000040 00000 64270F 595600 F95600		Add P00006 7/25/89 61,069.00+
			Add P00009 7/28/89 2,099,000.00+
			add P00012 2/26/90 89,000.00+
AC	ACCOUNT ESTABLISH UNCLASSIFIED	5793600 299 4720 663321 000040 00000 64735F 595600	F95600 \$ 225,000.00
	pr/mipr data: FY7615-88-01467		add P00010 9/15/89
			add P00007 11/22/89 1,645,000.00+
			add P00012 2/26/90 79,000.00+

SECTION G

<u>ACRN</u>	<u>Acct Class data</u>	<u>Appropriation/Lmt Subhead/CPN Recip DODAAD</u> <u>Supplemental Accounting Classification</u>	<u>Obligation</u> <u>Amount</u>
AD	ACCOUNT ESTABLISH UNCLASSIFIED	9700450 1120 000 0392 0P0940 002574 00007 64940D S49447	add P00012 2/26/90 \$ 800,000.00+
	pr/mipr data: DTAM00007		
AE	ACCOUNT ESTABLISH UNCLASSIFIED	5703600 290 4720 663321 000040 00000 64735F 595600	add P00004 3/1/90 F95600 \$10,384,713.00
	pr/mipr data: FY7615-88-01467		Add P00023 8/20/91 2,950,000.00 +
AF	ACCOUNT ESTABLISH UNCLASSIFIED	5713600 291 4720 663321 000040 00000 64735F 595600	Add P00013 10/19/90 \$1,000,000.00
	pr/mipr data: FY7615-88-01467		add P00014 10/31/90 600,000.00 +
			Add P00015 11/16/90 1,200,000.00 +
			Add P00016 12/19/90 2,000,000.00 +
			Add P00019 2/6/91 4,580,000.00 +
			Add P00021 5/23/91 174,550.00 +
			Add P00017 12/2/91 58,000.00 +

SECTION G

AG ACCOUNT ESTABLISH
UNCLASSIFIED

9710450. 1102 *Add P00019* F95600 \$ 1,860,000.00
5P1 4720 644081 000040 00000 64940D 595600
pr/mipr data: *add P00021* 4,000.00 +
FY7615-88-01467 5/23/91

AH ACCOUNT ESTABLISH
UNCLASSIFIED

5723600 *add P00024* F27900 \$ 200,000.00
292 4721 663321 000000 00000 64735F 527900
pr/mipr data: 12/3/91
92-HY-012

ACCOUNT CHANGE
UNCLASSIFIED

5723600 *chg. P00027* F27900 \$ 500,000.00 +
292 4721 663321 000000 00000 64735F 527900
pr/mipr data: 12/24/91
92-HY-020

ACCOUNT CHANGE
UNCLASSIFIED

chg. P00028
1/28/92
\$ 3,000,000.00+
pr/mipr data:
FY7621-92-31050+

Descriptive Data: (AMIS Page 2)

5723600 292 4721 663321 000000 00000 64735F 527900 F27900
PR is complete.

ACCOUNT CHANGE
UNCLASSIFIED

chg. P00029
3/2/92
\$ 2,000,000.00+
pr/mipr data:
FY7621-92-31057+

Descriptive Data: (AMIS Page 2)

5723600 292 4721 663321 000000 00000 64735F 527900 F27900
PR is complete.

ACCOUNT CHANGE
UNCLASSIFIED

chg. P00031
7/28/92
\$ 700,000.00+
pr/mipr data:
FY7621-92-31099+

Descriptive Data: (AMIS Page 2)

5723600 292 4721 663321 000000 00000 64735F 527900 F27900
PR is complete.

SECTION G

ACRN	Acct Class data	Appropriation/Lmt Subhead/GPN Recip DODAAD Supplemental Accounting Classification	Obligation Amount
AJ	ACCOUNT ESTABLISH UNCLASSIFIED pr/mipr data: FY7621-93-31010 Descriptive Data: (AMIS Page 2) PR is complete.	<i>add P00032</i> 10/19/92 5733600 F27900 293 4721 663321 000000 00000 64735F 527900	\$ 400,000.00
AJ	ACCOUNT CHANGE UNCLASSIFIED pr/mipr data: FY7621-93-31034+ Descriptive Data: (AMIS Page 4) 5733600 293 4721 663321 000000 00000 64735F 527900 F27900 PR is complete.	<i>add</i> P00034 11/19/92	\$ 800,000.00+
AK	ACCOUNT CHANGE UNCLASSIFIED pr/mipr data: FY7621-93-31092+ Descriptive Data: (AMIS Page 4) 5733600 293 4721 663321 221323 00592 64735F 527900 F27900 PR is complete.	<i>Chg.</i> P00038 3/3/93	\$ 600,000.00 \$ 400,309.00+ \$ 6,600,000.00+
AL	ACCOUNT ESTABLISH UNCLASSIFIED pr/mipr data: FY7621-93-31095 Descriptive Data: (AMIS Page 2) PR is complete.	<i>add</i> P00039 3/18/93 5733600 F27900 293 4721 696997 221323 00592 000000 527900	\$ 75,057.00
AM	ACCOUNT ESTABLISH UNCLASSIFIED pr/mipr data: FY7621-94-31045 descriptive data: PR is complete.	P00040 11/30/93 5743600 F27900 294 4721 663321 000000 00592 64256F 527900	\$ 3,000,000.00

SECTION G

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ACRN	Acct Class data	Appropriation/Lmt Subhead/CPN Recip Supplemental Accounting Classification	Obligation Amount
AM	ACCOUNT CHANGE UNCLASSIFIED pr/mipr data: FY7621-94-31095 FY7621-94-31100 descriptive data: 5743600 294 4721 663321 000000 592E 64256F 527900 PRs are complete.	P00042 3/10/94	\$ 1,328,000.00+
AN	ACCOUNT ESTABLISH UNCLASSIFIED pr/mipr data: FY7621-94-31140 descriptive data: PR is complete.	P00043 4/20/94 5743600 F27900 294 4721 066321 000000 05920 64256F 527900	\$ 1,388,676.00
AP	ACCOUNT ESTABLISH UNCLASSIFIED pr/mipr data: FY7621-94-31086 descriptive data: JON:D3321512 PR is complete.	P00044 6/3/94 5743600 F27900 294 4721 663321 000000 05920 64256F 527900	\$ 3,064,000.00
AQ	ACCOUNT ESTABLISH UNCLASSIFIED pr/mipr data: FY7621-94-31184 descriptive data: JON: D3321513 PR is partial.	P00045 7/15/94 5743600 F27900 294 4721 696997/221303 05920 000000 527900	\$ 500,000.00

SECTION G

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ACRN	Acct Class data	Appropriation/Lmt Subhead/CPN Recip DODAAD Supplemental Accounting Classification	Obligation Amount
AQ	ACCOUNT CORRECTION UNCLASSIFIED	P00046 9/9/94 5743600 294 4721 696997/221323 05920 000000 527900	\$ 827,079.00+
	pr/mipr data: FY7621-94-31184 FY7621-94-31215		
	descriptive data:		
	JON: D3321513 JON: D3321402 JON: D3321513 PR is complete.		
AR	ACCOUNT ESTABLISH UNCLASSIFIED	P00047 10/27/94 5753600 295 4721 663321/000000 5920 64256F 527900	\$ 5,900,000.00
	pr/mipr data: FY7621-95-31036		
	descriptive data:		
	JON: D5332002 PR is complete.		

3. Descriptive data for Special ACRN XA is changed to read as follows:

"MULTIPLE FUNDED REQUIREMENT - Additional ACRNs will be assigned and payment instructions revised when new accounting classifications are available. Recapitulation by ACRN is as follows: Pay from oldest year funds first."

AA - \$ 4,600,000.00 (BASIC,P1)	
AB - \$ 8,432,936.00 (P3,PZ1,P5,P6,P9,P12)	
AC - \$ 1,949,000.00 (P10,P7,P12)	
AD - \$ 800,000.00 (P12)	
AE - \$13,334,713.00 (P4,P23)	
AF - \$ 9,612,550.00 (P13-P17,P19,P21)	
AG - \$ 1,864,000.00 (P19,P21)	
AH - \$ 6,400,000.00 (P24,P27-29,P31)	
AJ - \$ 1,200,000.00 (P32,P34)	
AK - \$ 7,600,309.00 (P35,P37,P38)	
AL - \$ 75,057.00 (P39)	
AM - \$ 4,328,000.00 (P40,P42)	
AN - \$ 1,388,676.00 (P43)	
AP - \$ 3,064,000.00 (P44)	
AQ - \$ 1,327,079.00 (P45,P46)	
AR - \$ 5,900,000.00 (P47)	
Total - \$71,876,320.00	

Chg
P00047
10/27/94

4. The following is a funding recapitulation (through P00047):

<u>INSTRUMENT</u>	<u>TOTAL AMOUNT OBLIGATED</u>	<u>TOTAL CONTRACT PRICE</u>
BASIC	\$ 400,000.00	\$16,000,000.00
P00001	\$ 4,200,000.00	\$16,000,000.00
P00002	\$ 0.00	\$16,000,000.00
P00003	\$ 3,400,000.00	\$16,000,000.00
PZ0001	\$ 2,400,000.00	\$16,296,418.00
P00005	\$ 383,867.00	\$16,680,285.00
P00006	\$ 61,069.00	\$16,741,354.00
P00009	\$ 2,099,000.00	\$16,741,354.00
P00010	\$ 225,000.00	\$16,741,354.00
P00011	\$ 0.00	\$16,924,725.00
P00008	\$ 0.00	\$17,800,182.00
P00007	\$ 1,645,000.00	\$18,325,454.00
P00012	\$ 968,000.00	\$18,325,454.00
P00004	\$10,384,713.00	\$76,189,845.00
P00013	\$ 1,000,000.00	\$76,189,845.00
P00014	\$ 600,000.00	\$76,189,845.00
P00015	\$ 1,200,000.00	\$76,189,845.00
P00016	\$ 2,000,000.00	\$76,189,845.00
P00019	\$ 6,440,000.00	\$76,189,845.00
P00018	\$ 0.00	\$76,189,845.00
P00020	\$ 0.00	\$76,189,845.00
P00021	\$ 178,550.00	\$76,189,845.00

<u>INSTRUMENT</u>	<u>TOTAL AMOUNT OBLIGATED</u>	<u>TOTAL CONTRACT PRICE</u>
P00022	\$ 0.00	\$76,189,845.00
P00023	\$ 2,950,000.00	\$76,189,845.00
P00024	\$ 200,000.00	\$76,189,845.00
P00017	\$ 58,000.00	\$48,268,256.00
P00025	\$ 0.00	\$48,268,256.00
P00026	\$ 0.00	\$48,268,256.00
P00027	\$ 500,000.00	\$48,268,256.00
P00028	\$ 3,000,000.00	\$48,268,256.00
P00029	\$ 2,000,000.00	\$48,268,256.00
P00030	\$ 0.00	\$48,268,256.00
P00031	\$ 700,000.00	\$48,268,256.00
P00032	\$ 400,000.00	\$48,268,256.00
P00034	\$ 800,000.00	\$48,268,256.00
P00036	\$ 0.00	\$48,268,256.00
P00035	\$ 600,000.00	\$48,268,256.00
P00037	\$ 400,309.00	\$49,268,565.00
P00033	\$ 0.00	\$49,268,565.00
P00038	\$ 6,600,000.00	\$61,585,241.00
P00039	\$ 75,057.00	\$61,585,241.00
P00040	\$ 3,000,000.00	\$61,585,241.00
P00041	\$ 0.00	\$61,585,241.00
P00042	\$ 1,328,000.00	\$61,585,241.00
P00043	\$ 1,388,676.00	\$61,585,241.00
P00044	\$ 3,064,000.00	\$74,299,801.00
P00045	\$ 500,000.00	\$74,299,801.00
P00046	\$ 827,079.00	\$75,626,880.00
P00047	\$ 5,900,000.00	\$75,626,880.00
TOTAL	\$71,876,320.00	\$75,626,880.00

SECTION H - SPECIAL CONTRACT REQUIREMENTS

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

A. AFSC FAR Sup Clauses in Full Text

52.217-9001 TOTAL SYSTEM PERFORMANCE RESPONSIBILITY (APR 1987)

(a) By executing this contract, the Contractor agrees to assume Total System Performance Responsibility (TSPR) for REDCAP Simulator in accordance with the requirements of the specifications for CLIN(s) 0001 - 0003 as stated in Attachment 5 to this contract. These specifications set forth the performance requirements of the REDCAP Simulator. Notwithstanding any conflict or inconsistency which may exist between the performance requirement achievements and adherence to the Contractor's proposed design for the REDCAP Simulator, the Contractor agrees that the system to be delivered in this contract shall, as a minimum, meet the specification performance requirements.

(b) The Contractor's responsibilities for TSPR are as follows (list specific responsibilities and relate them directly to specification references):

Chg.
P20001
4/12/89

- (1) . . . Perform all functions identified in para 3 and all its subparagraphs . . . of the Statement of Work, and the System Requirements Documents.
- (2) . . .

(X) . . .
(c) The Contractor agrees that the incorporation into the REDCAP Simulator of Government Furnished Property (GFP) and Services as set forth in this SECTION H does not provide relief to the TSPR requirement and that:

(1) the Contractor shall give written concurrence in the design or performance characteristics of the GFP within thirty (30) days after delivery to the Contractor or subcontractor;

(2) the Contractor shall give written concurrence in each change affecting the design or performance characteristics made by the Government to the GFP; or

(3) if the Contractor does not concur in the design or performance characteristics, inspection and acceptance procedures, or changes to the design or performance characteristics of the GFP, the Contractor agrees to provide the Government (within thirty (30) days of GFP delivery to the Contractor or subcontractor) a list of the deficiencies in the GFP and the impact on cost, schedule and performance of this contract, in accordance with the Government Property clause in SECTION I. The Contractor should also provide recommended solutions and courses of actions needed to correct deficiencies. Failure of the Contractor to notify the Government within the established time, as required by this clause, shall be considered as Contractor concurrence and shall relieve the Government from any claims, from late or defective GFP, being submitted by the Contractor at a later date which would necessitate an equitable adjustment.

SECTION H -- SPECIAL CONTRACT REQUIREMENTS (cont'd)

(d) The Contractor acknowledges that it has no right to any claim or demands against the Government, its officers, agents, or employees, with respect to the specifications in effect on the contract award date (i) based upon impossibility of performance; defective, inaccurate, infeasible, insufficient or invalid specifications; implied warranties of suitability of specifications; or (ii) otherwise derived from the specifications, and waives any claims or demands that might otherwise arise.

(e) Regardless of the Changes clause or any other clause of the contract, no specifications changes proposed by the Contractor to achieve performance requirements shall entitle the Contractor to any increase in the total target cost, total target fee, or total price amounts established in SECTION B, or to any extensions in the delivery schedule established in SECTION F.

B. Additional Full Text Clauses

H-001 SPECIAL PARAGRAPH NUMBERING SYSTEM

The following paragraph numbers used in this SECTION are sequential but not necessarily consecutive. Paragraphs in the number series H-002 thru H-099 are considered unique to this contract. The three-digit numbering scheme is used throughout this document (i.e., A-002, F-002, etc.). This paragraph and any paragraph in the number series H-100 thru H-999 are considered to be standard language clauses which are normally used with this type/kind of contract. The parenthetical note which may appear at the end of such standard language clauses is a Government administrative procedure used to track the paragraph's source and date. Any standard paragraph with an "M" immediately following the three-digit number denotes a standard language clause which has been modified to fit the requirements of this document.

H-002 COMSEC NOTICE

All communications with DoD organizations are subject to communications security (COMSEC) review. Contractor personnel will be aware that telecommunications networks are continually subject to intercept by unfriendly intelligence organizations. The DoD has authorized the military departments to conduct COMSEC monitoring and recording of telephone calls originating from, or terminating at, DoD organizations. Therefore, civilian Contractor personnel are advised that any time they place a call to, or receive a call from, a USAF organization, they are subject to COMSEC procedures. The Contractor will assume the responsibility for ensuring wide and frequent dissemination of the above information to all employees dealing with official DoD information. (AFR 56-50, Para 9-5a)

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-003 INCORPORATION OF REFERENCED DOCUMENTS

All specifications, exhibits, drawings or other documents which are referred to in this contract, whether or not attached, are incorporated herein by reference.

H-004 REDIRECTION OF EFFORT

Notwithstanding any other provisions of this contract, the assigned Contracting Officer shall be the only individual authorized to redirect the effort or in any way amend any of the terms of this contract.

H-005 UNDEFINITIZED CONTRACTUAL ACTIONS (UCAS)

Undefinitized contractual actions (UCAs) which may be issued pursuant to the Changes Clause, SECTION I hereof, shall incorporate terms and conditions substantially as shown below in the contract modification which directs such UCA:

"(a) Limitations of Government Liability.

(1) In performing the effort authorized by this contractual document, the Contractor is not authorized to make expenditures or incur obligations exceeding \$ (Enter amount obligated).

(2) The maximum amount for which the Government shall be liable if this contractual document is terminated is \$ (Enter amount obligated).

(b) Definitization.

(1) The schedule for definitizing this contractual document is set forth below:

	<u>Date</u>
Proposal Submission	_____
Negotiations Complete	_____
Definitive Document Distribution	_____

(2) If agreement on a definitive contractual document to supersede this authorization is not reached by Negotiations Complete date in paragraph (1) above, or within any extension of it granted by the Contracting Officer, the Contracting Officer may determine a reasonable price or fee in accordance with Subpart 15.8 and Part 31 of the FAR, subject to Contractor appeal as provided in the Disputes Clause. In any event, the Contractor shall proceed with completion of the effort directed in this contractual document, subject only to paragraph (a) above.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

(c) Contractor Notification.

The Contractor shall notify the Contracting Officer in writing whenever it has reason to believe that the costs it expects to incur under this contractual action in the next 60 days, when added to all costs previously incurred under this contractual action, will exceed 75 percent of the total amount so far obligated by this contractual action by the Government. The notice shall state the estimated amount of additional funds required to continue performance until Definitive Document Distribution date specified in (b)(1) above or a date mutually agreed to by the parties hereto."
(ASD FAR 17-9004)

H-006 REIMBURSEMENT, INTEREST CHARGES, AND PENALTIES FOR
OVERPAYMENT

Notwithstanding any other provision of this contract, if the Government makes any overpayment under this contract subject to 10 U.S. Code 2306(a) and the overpayment was due to Contractor submission of inaccurate, incomplete or noncurrent cost or pricing data, the Contractor shall be liable to the Government (1) for interest on the amount of such overpayment to be computed from the date the payment was made to the Contractor to the date the Government is repaid at the rate established by the Secretary of the Treasurer under Section 6621 of the Internal Revenue Code of 1954 and (2) if such submission was a knowing submission, the Contractor shall be liable to the Government for an additional amount equal to the amount of the overpayment.

H-007 FOREIGN SOURCES

In the event that the Contractor anticipates soliciting foreign sources for any work under this contract, the Contractor shall notify the Contracting Officer (CO) 10 working days before either applying for an export license under ITAR (International Traffic in Arms Regulation), 22 CFR Sections 121-128, or before solicitation of the foreign sources, whichever shall occur first. This notification shall include detailed description of the Government data/equipment to be exported and a copy of the application for an export license, if such application has been made. This notification to the CO shall not be construed as an application for an export license, nor shall it in any way be interpreted to impede the Contractor's right to apply for an export license. However, if the CO disagrees with the application, the Contractor will be so notified. (ASD/PM Policy letter 87-069, dated 5 Aug 87)

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-008 FOREIGN NATIONALS

(a) For purposes of this clause, foreign nationals are all persons not citizens of, or immigrant aliens to, the United States. Nothing in this clause is intended to waive any requirement imposed by any other US Government agency with respect to employment of foreign nationals or export control.

(b) The Contractor acknowledges that equipment/technical data generated or delivered in performance of this contract is controlled by the International Traffic in Arms Regulation (ITAR) 22 CFR Sections 121-128, and may require an export license before assigning any foreign national to perform work under this contract or before granting access to foreign nationals to any equipment/technical data generated or delivered in performance of this contract (See 22 CFR Section 125.03 in this regard). The Contractor agrees to notify the Contracting Officer (CO) 10 working days prior to assigning or granting access to any work, equipment or technical data generated or delivered in performance of this contract. This notification will include the name and country of origin of the foreign national, the specific work, equipment or data to which the person will have access, and whether the foreign national is cleared to have access to technical data (Reference: Section 3 of DOD 5220.22-M, "Industrial Security Manual for Safeguarding Classified Information").

(c) The above requirements shall not be construed as an application for an export license nor shall they in any way be interpreted to impede the Contractor's right to apply for an export license. However, if the CO disagrees with the application, the Contractor will be so notified. (ASD/PM Policy letter 87-069, dated 5 Aug 87)

H-009 TEMPEST REQUIREMENTS

(a) The Contractor shall ensure that compromising emanations (TEMPEST) conditions related to this contract are minimized. NACSIM 5100A, NACSEM 5201, NACSIM 5203, NACSEM 5204 and NACSI 5004 shall be used as guidelines to meet this requirement.

(b) Any one or combination of the following methods can be used to minimize compromising emanations.

(1) Use TEMPEST certified equipment as identified on the Countermeasures Advisory Panel (CKAP) Preferred Products List (PPL).

(2) Operate classified processing equipment in a shielded enclosure designed to meet the requirements of NACSEM 5204, Appendix B, NSA Spec 65-6 or 72-3.

(3) Install classified processing equipment in accordance with NACSIM 5203, establish a physical control space based on emanation characteristics of the classified processors, or perform a facility TEMPEST test.

(4) Use TEMPEST acceptable equipment installed in accordance with NACSIM 5203 (TEMPEST acceptable equipment are those which have been previously tested and have control space requirements of less than that provided in a particular facility).

(c) The Contractor shall identify to the Contracting Officer the following information and provide updates before changes are made. This information will be used for an assessment of the Contractor's facility to be performed in accordance with NACSI 5004.

(1) SYSTEM DESCRIPTION

(A) SYSTEM/FACILITY: Provide a brief title identifying the overall system or facility, e.g., Test Launch Facility, Command Post Word Processing System, Plans and Programs Interactive Graphics System.

(B) EQUIPMENT: List the manufacturer's make and model of each piece of equipment involved in classified processing.

(C) LOCATION: Identify the facility, building, and room number where the system or facility is located.

(2) RESPONSIBLE PERSONNEL

SECURITY OFFICER/MANAGER: Provide the name, office symbol, and telephone number of the responsible security manager.

(3) OPERATION RISK (Contractor's Facility)

(A) LEVEL/AMOUNT OF CLASSIFIED: Identify the levels of classification which will be processed as well as the estimated hours per month and percent of total material processed for each category.

NOTE: Only identify SECRET or higher classified processing.

(B) SENSITIVITY/PERISHABILITY: identify any significant factors concerning the sensitivity and/or perishability of the classified data.

(C) FREQUENCY OF PROCESSING: Identify the classified processing schedule which will be used, e.g., scheduled, irregular, sporadic, cyclical, random. Assess the probability of the exact hours of classified use being pinpointed by unauthorized personnel. Describe any facts or circumstances that would make such determinations difficult.

(4) TECHNICAL RISK

(A) PHYSICAL CONTROL SPACE (PCS): Identify the radius in meters of the physical control space available around the system/equipment/facility. Describe the barriers, doors, fences, walls, etc., that define the PCS. Describe the control exercised over the PCS during duty and non-duty hours. Describe other factors which contribute to control, such as visitor procedures, escort requirements, searches of personnel and/or vehicles, etc.

(B) PCS BREACHES: Identify the type and location relative to the system of any unfiltered telephone or communication lines, ungrounded or unfiltered power lines, conduits, heating and air conditioning ducts, water pipes, etc., that transgress the established PCS.

(C) BUILDING CONSTRUCTION: Describe the building in which the system is housed, e.g., concrete block walls, aluminum doors, no windows.

(D) RED/BLACK INSTALLATION: Identify whether classified processors were installed in accordance with RED/BLACK criteria (i.e., installed in accordance with NACSIM 5203).

(E) SHIELDED ENCLOSURE: Identify whether classified processors are operated within an RF shielded enclosure.

(5) CORRECTIVE ACTIONS

Describe the steps which have been or will be taken to eliminate the compromising emanations conditions. Provide target dates for completion.

(d) The Prime Contractor shall ensure that all subcontractors/vendors comply with TEMPEST requirements when performing classified processing related to this contract.

(e) Classified processing shall not be accomplished until specific written authorization is provided by the Contracting Officer.

H-010

SPECIAL ACCESS REQUIREMENTS/PROCEDURES

When handling Special Access Program information, the Contractor shall comply with the requirements and procedures in SECTION J, ATCH NR 4 hereof.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-011 REQUIREMENT FOR ANNOTATED CONTRACT

The Contractor shall maintain an integrated, annotated and current version of this contract which shall be a single document, SECTIONS A through M, with all changes made in Contract Modifications, incorporated into the body of the document in lieu of the original version. Two copies of the annotated contract shall be submitted to the Procuring Contracting Officer and one copy to the Administrative Contracting Officer four (4) months after contract award and updated revisions every six (6) months thereafter until the contract is physically complete.

H-012 CONFLICT OF INTEREST - DATA

Your attention is invited to FAR Subpart 9.5. In the course of testing electronic warfare systems and subsystems, the Contractor may acquire or have access to data that is proprietary to other people or companies. To preclude the Contractor from being put into a position of conflicting interest, the following clause shall apply to this contract.

CONFLICT OF INTEREST

I. DATA HANDLING

a. It is anticipated that during the performance of this contract, the Contractor may require data or access to data which is proprietary to other persons, firms or corporations. Therefore, with regard to that proprietary data or computer software which the Contractor deems to be necessary for the performance of this contract, the Contractor herein agrees as follows:

i. To enter into agreement with those persons, firms, or corporations which have ownership of proprietary technical data and/or computer software, to use or have access to such technical data or computer software in the performance of this contract, and to assure protection thereof from unauthorized use or disclosure as long as such data remains proprietary;

ii. Not to use such data in supplying any system, subsystem, or component thereof to the Government, either directly or indirectly, as a prime Contractor, a subcontractor (regardless of the tier of subcontractor), or a vendor; and

iii. Not to use such data in performing additional studies or services for the Department of Defense in the same field, if the studies are to be obtained by competitive procurement.

iv. To include in contracts with third parties, including subcontracts down through any tier or contracts with parents up through any tier, the same contractual obligations imposed by this clause.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

b. The limitations set forth in subparagraphs (a)(ii) and (a)(iii) above shall apply for the period beginning with the date of award of this contract through and until two years after final payment to the Contractor herein under this contract or for as long as such data remains proprietary whichever is longer. However, neither the limitations in subparagraphs (a)(ii) and (a)(iii) above nor the other requirements of this clause shall apply to any data which is furnished without limitations as to its use by third parties or to any data which falls into the public domain.

c. The Contractor herein has the sole responsibility for obtaining authorization to use or have access to technical data or computer software which is necessary for the performance of this contract. Further, the Contractor herein agrees to furnish copies of any and all agreements entered into with third parties for the use or access to proprietary data, as contemplated by subparagraph (a)(i) above, within five calendar days after execution thereof.

d. The Contractor further agrees that it will:

i. Assure formal company policies and procedures effectively address the philosophy of FAR 9.505-4. The Contractor will also inculcate in its employees through formal training in company policy and procedures an awareness of the philosophy of FAR 9.505-4, so that they will refrain from divulging proprietary limited or restricted data obtained as a result of performing this contract to any unauthorized person.

ii. Obtain from each employee engaged in any effort connected with this contract a written agreement which shall in substance provide that such employee will not, during his employment by the Contractor or thereafter, disclose to others or use for his own benefit any trade secrets, confidential information, or proprietary data received in connection with the work under this contract.

e. Except as specifically provided in this clause, the Contractor shall be free to compete for Government's business on an equal basis with other companies.

f. For the purpose of this provision, "Contractor" includes parents, subsidiaries, affiliates, and entities under the control of the Contractor.

H-013 OPTIONS

Chg.
P00017
12/2/91

"The Government is hereby granted the option to order the work set forth in Options A thru F within the Not-to-Exceed Price set forth therein. The options may be exercised in accordance with Statement of Work, SUPPLEMENT 1, 1 Feb 91 ATCH 9 herein,, paragraphs 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. Prior to the option exercise date, the contractor shall, at the direction of the Procuring Contracting Officer (PCO), submit a Firm CPIF proposal within thirty days after receipt of request, for that option. For every day the contractor is late in providing the proposal (in excess of thirty days), the option exercise date shall be extended an equal number of days. The PCO also has the right to extend the option exercise date by requesting another Not-to-Exceed (NTE) price for a later period of performance. Should the PCO extend the option exercise date, the contractor shall submit a revised NTE proposal within thirty days of receipt of notification to extend. Upon receipt of the firm proposal, the definitization schedule is as follows:

Request for Proposal	0 days
Proposal Receipt	30 days
Factfinding Complete	60 days
Negotiations Complete	90 days
Contractor Signature	110 days
Contract Award	120 days

The option exercise dates and periods of performance are as follows:

	<u>EXERCISE DATES</u>	<u>PERIOD OF PERFORMANCE*</u>
Option A	No later than 1 Jun 92 (CLIN 0015)	14
Option B	No later than 1 Jun 92 (CLIN 0016)	14
Option C	No later than 1 Jun 92 (CLIN 0017)	20
Option D	No later than 1 Jun 92 (CLIN 0018)	20
Option E	No later than 1 Jun 93 (CLIN 0019)	24
Option F	No later than 1 Jun 93 (CLIN 0020)	27

*(Months after option exercise)"

ASSOCIATE CONTRACTOR AGREEMENTS

The Contractor shall establish an Associate Contractor Agreement, with the General Dynamics Corporation, to support REDCAP/AFEWES Interface Working Groups (IWC). The IWCs shall meet, as necessary, to maximize commonality between the REDCAP and AFEWES upgrades and to eliminate any duplication of effort. The focus of these IWCs shall be to identify each contractor's respective responsibilities, define common requirements, investigate existing equipment (i.e., "off the shelf"), optimize future interfaces between the REDCAP/AFEWES facilities, coordinate schedule information, exchange lessons learned, optimize hardware/software testing methodology between the REDCAP/AFEWES facilities and provide supporting rationale and recommendation to ASD/RWW toward meeting the established IWC goals. These IWCs shall be cochaired by designated representatives from each contractor, with Government participation. Any disagreements which cannot be resolved between the associate contractors shall be submitted to the contracting officer for resolution and his decision shall be final.

added P00017
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H-014 ENABLING CLAUSE FOR TECHNICAL AND ENGINEERING ACQUISITION SUPPORT

- a. The Air Force has entered into a contract for the services of Sverdrup Corporation to provide Technical and Engineering Acquisition Support (TEAS) for Eglin activities.
- b. TEAS involves the application of a broad range of education, skills, knowledge, and experience in many disciplines in support of weapon systems' acquisition tasks. Tasks involve assistance in preparing technical orders, manuals, statements of work, system specifications, contract data requirements lists, system engineering management plans, test and evaluation master plans, integrated logistic support plans, etc.; review of development/product specifications, engineering drawings, computer program listings, technical reports, configuration audits, etc.; and advisory participation in program management, technical interchange, and group meetings. TEAS tasks may entail appraising the technical performance of a Contractor through meetings, exchanging data, presentations, reviewing hardware and software, witnessing and evaluating tests, analyzing plans for future work, evaluating efforts relative to contract technical objectives, and providing an independent technical assessment for consideration of the Air Force Manager for modifying a program or redirecting a contractor's efforts to assure timely and economical accomplishments of program objectives.
- c. In the performance of this contract, the Contractor agrees to cooperate with the TEAS Contractor, by responding to requests from authorized Government personnel to permit TEAS personnel to attend meetings, by providing access to technical information and research, development and planning data such as, but not limited to, design and development and planning data such as, but not limited to, design and development analyses, test data and results, equipment and process specifications, test and test equipment specifications and procedures, parts and quality control procedures, records and data, manufacturing and assembly procedures, and schedule and milestone data, all in their original form or reproduced excluding financial data, by discussing technical matters relating to this program, by providing access to contractor facilities utilized in performance of this contract, and by allowing observation of technical activities by appropriate TEAS contractor technical personnel. The contractor personnel engaged in TEAS are authorized access to any technical information required under their Task Orders, including classified on a need-to-know basis, pertaining to this contract. Release of information by Calspan to the TEAS contractor shall be limited to that generated under this contract.

d. The Contractor further agrees to include in each subcontract over \$1,000,000 or 10% of prime contract value, whichever is less, a clause requiring compliance by a subcontractor and succeeding levels of subcontractors with the response and access provisions of paragraph c. above, subject to coordination with the Contractor. This agreement does not relieve the Contractor of his/her responsibility to manage subcontracts effectively and efficiently, nor is it intended to establish privity of contract between the government or the TEAS Contractor and such subcontractors.

e. TEAS Contractor personnel are not authorized to direct a Contractor in any manner. The Contractor agrees to accept technical direction as follows:

(1) Technical direction under this contract will be given to the Contractor solely by the person(s) designated in writing by the Contracting Officer. All TEAS contract requirements placed on Calspan will be subjected to prior Air Force approval.

(2) Whenever it becomes necessary to modify the contract and redirect the effort, a Change Order signed by the Contracting Officer, or a Supplemental Agreement signed by both the Contracting Officer and the Contractor will be issued.

f. The TEAS contract contains an Avoidance of Organizational Conflict of Interest provision which requires the TEAS Contractor to protect the data, and prohibits the Contractor from using the data for any purpose other than that for which the data was presented.

g. Neither the Contractor nor his subcontractors shall be required in the satisfaction of the requirements of this clause, to perform any effort nor supply any documentation, other than that required by this contract or subcontracts.

H-015 ENABLING CLAUSE FOR TECHNICAL EVALUATION AND ACQUISITION MANAGEMENT SUPPORT

a. The Air Force has entered into three contracts for the services of RMS Technologies, Inc., Computer Sciences Corporation and Information Systems and Network Corporation (ISN) to provide technical evaluation and acquisition management support (TEAMS) for Eglin activities.

b. TEAMS: Involves the application of a broad range of education, skills, knowledge and experience in many disciplines in support of systems acquisition tasks.

Tasks involve assistance in preparing technical orders, manuals, statements of work, system specifications, contract data requirements lists, system engineering management plans, test and evaluation master plans, integrated logistic support plans etc.; review of development/product specifications, engineering drawings, computer program listing, technical reports, configuration audits, etc.; and advisor participation in program management, technical interchange, and group meetings.

TEAMS tasks may entail appraising the technical performance of a Contractor through meetings, exchanging presentations, reviewing hardware and software, witnessing and evaluating tests, analyzing plans for future work, evaluating efforts relative to contract technical objectives, and providing an independent technical assessment for consideration of the Air Force Manager for timely and economical accomplishment of program objectives.

c. In the performance of this contract, the Contractor agrees to cooperate with the TEAMS Contractors, by responding to requests from authorized Government personnel: permit TEAMS personnel to attend meetings, by providing access to technical information and research, development and planning data such as, but not limited to, design and specifications, test and test equipment specifications, and procedures, parts and quality control procedures, records and data including source selection sensitive information manufacturing and assembly procedures, schedule and milestone data, financial data including the contractor's cost/schedule management system/records and accounting system all in their original form or reproduced; by discussing technical and financial matters relating to this program, by providing access to contractor facilities utilized: activities by appropriate TEAMS contractors' technical and financial personnel. Personnel engaged in TEAMS are authorized access to any technical information required under their Task Orders, including classified on a need-to-know basis, pertaining to this contract. Release of information by Calspan to the TEAMS shall be limited to that generated under the contract.

d. Subcontract Flowdown: The Contractor further agrees to include in each subcontract over \$1,000,000 or 10% of prime contract value whichever is less, a clause requiring compliance by a subcontractor and succeeding levels of subcontractors with the response and access provisions of paragraph c. above subject to coordination with the Contractor. This agreement does not relieve the Contractor of his/her responsibility to manage subcontracts effectively and efficiently, nor is it intended to establish privity of contract between the Government or the TEAMS Contractors and such subcontractors.

e. TEAMS Contractors' personnel are not authorized to direct a Contractor in any manner. The Contractor agrees to accept technical direction as follows:

(1) Technical direction under this contract will be given to the Contractor solely by the person(s) designated in writing by the Contracting Officer. All TEAMS contract requirements placed on Calspan will be subject to prior Air Force approval.

(2) Whenever it becomes necessary to modify the contract and redirect the effort, a Change Order signed by the Contracting Officer, or a Supplemental Agreement signed by both the Contracting Officer and the Contractor will be issued.

f. The TEAMS contract(s) contains an Avoidance of Organizational Conflict of Interest clause which requires the TEAMS Contractor(s) to protect proprietary and competitor sensitive data and strictly prohibits the TEAMS contractor(s)' use thereof. In addition, the clause requires the TEAMS contractor(s) to obtain from each employee engaged in any effort connected with its contract an agreement, which shall in substance provide that such an employee will not, so long as it continues to be entitled to protection under recognized legal principles, disclose to others or use for his/her own benefit proprietary, company private, or competition sensitive data received in connection with work under its contract.

g. Neither the Contractor nor his subcontractors shall be required in the satisfaction of the requirements of this clause, to perform any effort or supply any documentation, other than that required by this contract or subcontracts.

H-104 ACKNOWLEDGEMENT OF SPONSORSHIP

(a) The Contractor agrees that in the release of information relating to this contract such release shall include a statement to the effect that the project or effort depicted was or is sponsored by the agency set forth below:

Aeronautical Systems Division (AFSC)
Wright-Patterson AFB, Ohio

Prior to public release, this information will be processed through the ASD Office of Public Affairs, ASD/CPA, according to the administrative guidelines of that office.

(b) For the purpose of this clause, "information" includes but is not limited to, news releases, articles, manuscripts, brochures, advertisements, still and motion pictures, speeches, trade association meetings, symposia, etc.

(c) Nothing in the foregoing shall affect compliance with the requirements of the clause of this contract entitled "Security Requirements."

(d) The Contractor further agrees to include this clause in any subcontract awarded as a result of this contract.

H-143 IMPLEMENTATION OF INCENTIVE FEE CLAUSE

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P00046
9/9/94

"(a) The target cost of this contract as contemplated by the "Incentive Fee" clause of Section I hereof is \$70,165,569.00, an increase of \$1,526,782.00.

(b) The target fee for this contract as contemplated by said clause is \$5,812,791.00. For payment of target fee, see AFSC Clause 52.216-9000, Section I hereof. The fee not-to-be-achieved is \$351,480.00, an increase in fee reduction of \$199,704.00.

(c) The information to be inserted in paragraph (c)(1) of the above-referenced clause (i.e., FAR 52.216-10) is as follows:

Chg. P00007
11/24/89

"The fee payable under this contract shall be the target fee increased by fifteen (15) cents for every dollar that the total allowable cost is less than the target cost or decreased by fifteen (15) cents for every dollar that the total allowable cost exceeds the target cost. In no event shall the fee be greater than 10.0% or less than 0.0% of the target cost."

H-197 ESTIMATED COST (INCREMENTALLY FUNDED)

Chg
P00047
10/27/94

Section H-197 is amended to read: "the amount presently available and allotted to this contract is increased by \$5,900,000.00 to read \$71,876,320.00. The period of performance for paragraph (b) amount allotted herein is 31 Jan 95."

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H- 250 GOVERNMENT FURNISHED PROPERTY

"The Contractor shall acquire for use in the performance of this contract the property set forth below in accordance with the requirements of the "Government Property" clause, Section I hereof. The Contractor Acquired Property List shall be updated every three months, beginning at the first full quarter after contract award. The update shall be accomplished via Supplemental Agreement. (The list of Contractor Acquired Property is hereby attached to Section J; Atch 7 hereof).

H- 253 GOVERNMENT FURNISHED MATERIEL (GFM) MILSTRIP PROCEDURES

(a) The Contractor shall maintain the following items of GFM while in its possession and is authorized to use the MILSTRIP system to requisition parts from DoD supply sources in accordance with DoD FAR Supplement Appendix H, in order to provide such maintenance:

TBD(To be determined)

(b) The Contractor's authorization to use the MILSTRIP system will terminate on (Date) after which the Contractor shall submit no more MILSTRIP requisitions in support of this contract. The Contractor shall requisition only those items necessary for performance of this contract and shall return all excess items using normal MILSTRIP return procedures.

(c) The Contractor shall enter (TBD) as the project code in card columns 57-59 of DD Form 1348, DoD Single Line Item Requisition System Document, for all MILSTRIP requisitions submitted in support of this contract.

(d) The Contractor shall enter the last six numerical digits of this contract number () in card columns 45-50 of the DD Form 1348. If this field is already filled, the Contractor shall use columns 71-76 or, alternately, the "Remarks" section of the DD Form 1348.

(e) The Contractor shall submit all MILSTRIP requisitions to the Contract Administration Office (CAO) representative at the Contractor's plant. The CAO will approve or reject the Contractor's MILSTRIP requisition.

(f) The Contractor shall enter (TBD) as the Advice Code in columns 65-66.

(g) The Contractor shall enter (TBD) as the Signal Code in column 51.

(h) The Contractor shall enter (TBD) as the Fund Code in columns 52-53.

(i) The Contractor may pass authorizations to use the MILSTRIP system to his subcontractor(s) but only after prior written approval of the Contracting Officer, where upon the same provisions and restrictions contained in this contract will apply to the subcontractor(s).

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

(j) The Contractor may find additional guidance in AFM 67-1, Volume I, Part One, in DODM 4000.25-1 or in DODI 4140.48.

(k) The Contractor shall use Issue Priority Designators (IPDs) as assigned by the CAO for each MILSIRTP requisition submitted.

(l) The Contractor shall enter (TBD) as the two-digit designator Code in columns 40-41 of DD Form 1348.

H-360

MODIFICATION OF DATA REQUIREMENTS

(a) From time to time during the performance of this contract, the Contracting Officer unilaterally may change the place of delivery and the technical office for any line item hereto, at no change in contract price, notwithstanding the provisions of the clause of SECTION I entitled "Changes".

(b) From time to time during the performance of this contract, the Contracting Officer unilaterally may increase or decrease the number of addresses and/or increase or decrease the number of copies (regular or reproducible) specified for any data item of the CDRL hereto, at no change in price provided that the increase in the total number of copies (regular or reproducible) for an individual line item of data shall not be greater than one hundred-fifty percent (150%) of the total number of copies (regular or reproducible) initially specified in the CDRL nor shall the decrease in the total number of copies (regular or reproducible) for an individual item of data be greater than fifty percent (50%) of the total number of copies (regular or reproducible) initially specified in the CDRL. In the event of an increase greater than such 150% or of a decrease greater than fifty percent (50%), the parties will negotiate any equitable adjustments in accordance with the procedures of the "Changes" clause.

(c) From time to time during the performance of this contract, the Contracting Officer unilaterally may make other administrative and clarification changes to the CDRL hereto, and the contract price will constitute full satisfaction of any entitlement of equitable adjustment under the "Changes" clause provided the Contractor agrees to accept such change at no change in contract price.

(d) Unilateral action pursuant to (a), (b), and (c) above shall be by the issuance of a Contracting Officer's letter or message which will reference this paragraph as its authority. Any change pursuant to (c) above which does impact the contract price shall not be acted upon by the Contractor but shall require notification of the estimated impact to the Contracting Officer.

(e) On a quarterly basis, the Contractor shall submit a proposed Contract Document Change Notice (CDCN) incorporating the Contracting Officer letters and messages issued pursuant to (a), (b) and (c) above for Air Force review and approval.

SECTION H - SPECIAL CONTRACT REQUIREMENTS (cont'd)

H-530 SUBMISSION OF SUBCONTRACTING PLAN

The clause contained in FAR 52.219-9, entitled "Small Business and Small Disadvantaged Business Subcontracting Plan (APR 1984)", applies to the work hereunder except that the final plan required therein must be submitted not later than 60 days after the date of this document or submission of the price proposal whichever occurs first. Negotiation of the final details of the Subcontracting Plan shall be concluded within 90 days after the date of this document or before definitization, whichever occurs first.
(ASD FAR 19.705-5)

H-531 FACILITY IMPROVEMENT CAPITALIZATION

Permanent, non-severable capital improvement to a Contractor owned facility are to be indirectly charged to overhead pools and capitalized accordingly. Permanent, non-severable property is defined by AFR 78-22, Attachment 1, and will be capitalized by the Contractor.

Contract clauses in this section from the FAR, DOD FAR Sup, Air Force FAR Sup, and Air Force Systems Command FAR Sup, are current through the following updates:

FAR: FAC 84-37; DOD FAR Sup: DAC 86-15; AF FAR Sup: CHANGE 15;
AFSC FAR Sup: CHANGE 5; AFACs thru 88-23

A. 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

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

52.202-1	DEFINITIONS (APR 1984)
52.203-1	OFFICIALS NOT TO BENEFIT (APR 1984)
52.203-3	GRATUITIES (APR 1984)
52.203-5	COVENANT AGAINST CONTINGENT FEES (APR 1984)
52.203-7	ANTI-KICKBACK PROCEDURES (FEB 1987)
52.204-1	APPROVAL OF CONTRACT (APR 1984)
52.204-2	SECURITY REQUIREMENTS (APR 1984)
52.212-8	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (MAY 1986)
52.215-1	EXAMINATION OF RECORDS BY COMPTROLLER GENERAL (APR 1984)
52.215-2	AUDIT - NEGOTIATION (APR 1988)
52.215-21	CHANGES OR ADDITIONS TO MAKE OR BUY PROGRAM (APR 1984)
52.215-22	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA (APR 1988)
52.215-24	SUBCONTRACTOR COST OR PRICING DATA (APR 1985)
52.215-31	WAIVER OF FACILITIES CAPITAL COST OF MONEY (SEP 1987) (The above-referenced clause applies only if the Contractor <u>does not</u> propose facilities capital cost of money in its offer.)
52.215-33	ORDER OF PRECEDENCE (JAN 1986)
52.216-7	ALLOWABLE COST AND PAYMENT (APR 1984) (If this contract is with an educational institution, paragraph (a) of the above-referenced clause is amended by changing reference to "Subpart 31.2" to read "Subpart 31.3.")
52.216-10	INCENTIVE FEE (APR 1984)
52.216-23	EXECUTION AND COMMENCEMENT OF WORK (APR 1984) (The date to be inserted in the above-referenced clause by which the Contractor shall indicate acceptance of this letter contract to the Contracting Officer is _____.)
52.216-24	LIMITATION OF GOVERNMENT LIABILITY (APR 1984) (The dollar amounts to be inserted in paragraphs (a) and (b) of the above-referenced clause is \$13,168,936.00 respectively.)

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9/15/89

SECTION I - CONTRACT CLAUSES (cont'd)

- 52.216-25 CONTRACT DEFINITIZATION (APR 1984)
(The information to be inserted in the above-referenced clause is as follows:
- In paragraph (a), insert reference to a (CPIF) in each blank, as appropriate.
- In paragraph (b), the following definitization schedule shall apply:
- | Event | Within Days After Effective Date |
|--|----------------------------------|
| Receipt of Contractor's Proposal | 30 |
| Complete Negot. of Subcontracting Plan | 90 |
| Audit Reports Complete | 90 |
| Negotiations Complete | 140 |
| Contract Distribution | 180) |
- 52.216-26 PAYMENTS OF ALLOWABLE COSTS BEFORE DEFINITIZATION (APR 1984)
- 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL DISADVANTAGED BUSINESS CONCERNS (JUN 1985)
- 52.219-9 SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACTING PLAN (APR 1984)
- 52.219-13 UTILIZATION OF WOMEN-OWNED SMALL BUSINESSES (AUG 1986)
- 52.220-3 UTILIZATION OF LABOR SURPLUS AREA CONCERNS (APR 1984)
- 52.220-4 LABOR SURPLUS AREA SUBCONTRACTING PROGRAM (APR 1984)
- 52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (APR 1984)
- 52.222-2 **Payment for Overtime Premiums (JUL 1990)**
((a) overtime premium cost does not exceed \$308.00.)
- 52.222-3 CONVICT LABOR (APR 1984)
- 52.222-26 EQUAL OPPORTUNITY (APR 1984)
- 52.222-28 EQUAL OPPORTUNITY PREAWARD CLEARANCE OF SUBCONTRACTS (APR 1984)
- 52.222-35 AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA VETERANS (APR 1984)
- 52.222-36 AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (APR 1984)
- 52.222-37 EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (JAN 1988)
- 52.223-2 CLEAN AIR AND WATER (APR 1984)
- 52.227-1 AUTHORIZATION AND CONSENT (APR 1984)
ALTERNATE I (APR 1984)
- 52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (APR 1984)
- 52.227-10 FILING OF PATENT APPLICATIONS - CLASSIFIED SUBJECT MATTER (APR 1984)
- 52.227-12 PATENT RIGHTS --- RETENTION BY THE CONTRACTOR (LONG FORM) (APR 1984)
- 52.228-6 INSURANCE - IMMUNITY FROM TORT LIABILITY (APR 1984)
- 52.228-7 INSURANCE - LIABILITY TO THIRD PERSONS (APR 1984)
- 52.230-3 COST ACCOUNTING STANDARDS (SEP 1987)
- 52.230-4 ADMINISTRATION OF COST ACCOUNTING STANDARDS (SEP 1987)
- 52.232-9 LIMITATIONS ON WITHHOLDING OF PAYMENTS (APR 1984)
- 52.232-17 INTEREST (APR 1984)
- 52.232-22 LIMITATION OF FUNDS (APR 1984)

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3/3/93

SECTION I -- CONTRACT CLAUSES (cont'd)

- 52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)
ALTERNATE I (APR 1984)
- 52.232-25 PROMPT PAYMENT (FEB 1988)
ALTERNATE II (FEB 1988)
(Pursuant to FAR 32.908(c), ALTERNATE II above applies if payment by the Government is to be made by electronic funds transfer.)
- 52.233-1 DISPUTES (APR 1984)
- 52.233-3 PROTEST AFTER AWARD (JUN 1985)
ALTERNATE I (JUN 1985)
- 52.242-1 NOTICE OF INTENT TO DISALLOW COSTS (APR 1984)
- 52.242-10 F.O.B. ORIGIN - GOVERNMENT BILLS OF LADING OR PREPAID POSTAGE (APR 1984)
- 52.243-2 CHANGES - COST-REIMBURSEMENT (AUG 1987)
ALTERNATE V (APR 1984)
- 52.243-6 CHANGE ORDER ACCOUNTING (APR 1984)
- 52.244-2 SUBCONTRACTS (COST-REIMBURSEMENT AND LETTER CONTRACTS) (JUL 1985)
ALTERNATE I (APR 1985)
- 52.244-5 COMPETITION IN SUBCONTRACTING (APR 1984)
- 52.245-5 GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS) (JAN 1986)
- 52.245-19 GOVERNMENT PROPERTY FURNISHED "AS IS" (APR 1984)
- 52.247-1 COMMERCIAL BILL OF LADING NOTATIONS (APR 1984)
- 52.249-6 TERMINATION (COST-REIMBURSEMENT) (MAY 1986)
- 52.249-14 EXCUSABLE DELAYS (APR 1984)

FAR 52.251-1, Government Supply Sources (Apr 84), is added to contract.
II. DEPARTMENT OF DEFENSE SUPPLEMENT (48 CFR CHAPTER 2) CLAUSES

- 52.203-7001 SPECIAL PROHIBITION ON EMPLOYMENT (APR 1987)
- 52.203-7003 DISPLAY OF DOD HOTLINE POSTER (OCT 1987)
- 52.204-7005 OVERSEAS DISTRIBUTION OF DEFENSE SUBCONTRACTS (AUG 1986)
- 52.205-7000 RELEASE OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS (FEB 1988)
- 52.215-7000 AGGREGATE PRICING ADJUSTMENT (APR 1985)
- 52.215-7003 COST ESTIMATING SYSTEM REQUIREMENTS (FEB 1988)
- 52.225-7009 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (OCT 1980)
- 52.225-7027 RESTRICTION ON CONTRACTING WITH TOSHIBA CORPORATION OR KONGSBERG VAPENFABRIKK (MAR 1988)
- 52.227-7013 RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE (APR 1988)
- 52.227-7018 RESTRICTIVE MARKINGS ON TECHNICAL DATA (APR 1988)
- 52.227-7026 DEFERRED DELIVERY OF TECHNICAL DATA OR COMPUTER SOFTWARE (APR 1988)
- 52.227-7027 DEFERRED ORDERING OF TECHNICAL DATA OR COMPUTER SOFTWARE (APR 1988)
- 52.227-7029 IDENTIFICATION OF TECHNICAL DATA (MAR 1975)
- 52.227-7030 TECHNICAL DATA - WITHHOLDING OF PAYMENT (APR 1988)
- 52.227-7036 CERTIFICATION OF TECHNICAL DATA CONFORMITY (MAY 1987)
- 52.227-7037 VALIDATION OF RESTRICTIVE MARKINGS ON TECHNICAL DATA (APR 1988)

Mod.
R00001
12/9/88

cyt

SECTION I - CONTRACT CLAUSES (cont'd)

52.231-7000 SUPPLEMENTAL COST PRINCIPLES (APR 1984)
52.233-7000 CERTIFICATION OF REQUESTS FOR ADJUSTMENT OR RELIEF
EXCEEDING \$100,000. (FEB 1980)
52.234-7001 COST/SCHEDULE CONTROL SYSTEMS (AUG 1985)
52.235-7002 RECOVERY FOR NONRECURRING COSTS ON COMMERCIAL SALES
(FEB 1980)
52.242-7003 CERTIFICATION OF INDIRECT COSTS (APR 1986)
52.243-7000 ENGINEERING CHANGE PROPOSALS (AUG 1985)
52.245-7000 Government Furnished Mapping, Charting and Geodesy Property (Nov 1988)

add
P00017
12/2/91
add P00004
3/1/90

252.271-7001 "Recovery of Nonrecurring Costs on Commercial Sales of Defense Products and of Technology and Royalty Fees for use of DOD technical Data" (Feb 89)

B. DOD FAR Sup Clauses in Full Text

52.203-7002 STATUTORY COMPENSATION PROHIBITIONS AND REPORTING
REQUIREMENTS RELATING TO CERTAIN FORMER DOD EMPLOYEES
(APR 1987)

(a) Definitions. Terms used in this clause are defined at paragraph 3.170-1 of the Defense Federal Acquisition Regulation Supplement (48 CFR Chapter 2).

(b) Prohibition on compensation.

(1) 10 U.S.C. 2397b and 2397c prohibit a major defense contractor from offering or providing any compensation valued in excess of \$250 to a former Department of Defense (DoD) official who left DoD service on or after April 16, 1987, and who, while employed by DoD, performed procurement related functions in connection with that same defense contractor. This prohibition runs for the two-year period beginning on the date of such person's separation from service in DoD.

(2) The Contractor, if a major defense contractor, agrees not to provide, for such two-year period, any compensation to such a former DoD official.

(3) DoD employees may request from their Defense Agency Ethics Official (DAEO) a written opinion on the applicability of 10 U.S.C. 2397b prior to the acceptance of compensation. If the opinion rendered by the DAEO states that the law is inapplicable, and that the individual may accept compensation from the contractor, there shall be a conclusive presumption that the offering and the acceptance of such compensation is not a violation of the statute.

(c) Report concerning former DoD employees.

(1) The Contractor shall submit a separate written report, as described in (c)(2) below, for each calendar year covered by this contract (commencing with the calendar year of award and extending through the end of the calendar year in which final payment is made) if the calendar year commenced after the end of a Government fiscal year in which the Contractor was awarded one or more DoD contracts aggregating \$10,000,000 or more. Each report shall be submitted to the Office of the Assistant General Counsel (Legal Counsel), Standards of Conduct Office, Attn: OAGC/LC, Pentagon, Washington, DC 20301-1600 listing those persons in its employ, or whom it has otherwise compensated, if those persons:

(i) were former DoD employees who left DoD service (on or after April 16, 1987), within the two years immediately preceding the calendar year for which the report is being made; and,

(ii) served in a civilian position for which the rate of pay is equal to or greater than the minimum rate of pay for Grade GS-13 Step 1 of the General Schedule or served in the Armed Forces in a pay grade of O4 or higher.

(2) The report shall contain the following elements:

(i) each individual's name and an identification of the agency in which each individual was employed or served on active duty during the last two years of the individual's service with DoD;

(ii) each individual's job title(s) during the person's last two years of service with DoD and a list of major defense systems on which each individual performed any work;

(iii) a complete description of any work that each individual is performing, or did perform, on behalf of the Contractor during the calendar year covered by the report; and,

(iv) an identification of each major defense system on which each individual has performed any work on behalf of the Contractor.

(3) Each report required under (c)(1) above shall be submitted not later than April 1 following the end of the calendar year for which the report is being made.

(4) A DD Form 1787 properly certified by the individual to whom it relates may be submitted to satisfy the reporting requirement as to any single individual.

(5) The Contractor need not submit duplicate reports to the Government. Submission of a report meeting the requirements of this clause, under another, concurrent contract with DoD will satisfy the reporting requirement of this contract as to any single calendar year.

(d) Penalties for failure to comply.

(1) Civil fines for failure to comply with 10 U.S.C. 2397b. A contractor who knowingly offers or provides any compensation to a former DoD official in violation of the statute, and who knew or should have known that the acceptance of such compensation would be in violation of such statute, shall be subject to a civil fine, not to exceed \$500,000.

(2) Liquidated damages for failure to comply with 10 U.S.C. 2397c.

(i) For each knowing violation of the statutory prohibition on providing compensation, the Contractor agrees to pay to the United States Government as liquidated damages the greater of either \$100,000 or three times the amount of compensation paid by the Contractor to the former DoD official in violation of the statutory prohibition.

(ii) Liability for liquidated damages under this clause survives final payment under this contract and may be recouped against payments due under other contracts with the Contractor. The rights and remedies under this clause are in addition to and do not limit any rights afforded to the Government under this contract or as otherwise provided by law.

(iii) Liquidated damages will be computed based upon the number of actual violations by the Contractor, and not on the number of contracts in which this clause appears.

(3) Penalties for failure to report. If the Contractor knowingly fails to file a report in accordance with (c) above, the Contractor shall be subject to an administrative penalty not to exceed \$10,000. The final determination of the penalty to be charged to the Contractor shall be made by the Secretary of Defense or designee after the Contractor is afforded an opportunity for an agency hearing on the record in accordance with agency hearing procedures. The Secretary's determination shall form a part of the record and shall be subject to judicial review under Chapter 7 of Title 5, United States Code.

52.209-7001

ACQUISITIONS FROM DEFENSE CONTRACTORS SUBJECT TO ON-SITE
INSPECT. UNDER THE INTERMED.-RANGE NUC.FORCES(INF) TREATY
(JUN 1988)

(a) The Contractor shall not deny subcontract awards under this contract to Defense contractors subject to on-site inspection under the INF Treaty solely or in part because of the presence of Soviet inspectors at the Defense contractor's facility unless the decision is approved by the Contracting Officer.

(b) The Contractor shall incorporate this clause, including this paragraph (b), with appropriate changes to identify properly the contracting parties in all solicitations and contracts in excess of the dollar threshold identified at FAR 13.000.

(REF: AFAC 88-18)

SECTION I - CONTRACT CLAUSES (cont'd)

52.219-7000 SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
SUBCONTRACTING PLAN (DOD CONTRACTS) (FEB 1988)

(a) Wherever in the clause of this contract entitled "Small Business and Small Disadvantaged Business Subcontracting Plan", FAR 52.219-9, the term "small disadvantaged business" is used, such term shall be deemed to include (in addition to small disadvantaged business concerns), Historically Black Colleges and Universities (HBCUs) and Minority Institutions (MIs) as those terms are defined at DoD FAR Supplement 26.7002. Lists of qualifying HBCUs and MIs are published periodically by the U.S. Department of Education, and are available from the Contracting Officer.

(b) In addition, master plans referred to in FAR 52.219-9 must be approved by the Government's cognizant Contract Administration Office.

52.219-7009 INCENT. PROG. FOR SUBCONT. WITH SMALL & SMALL DISADV. BUS.
CONCERNS, HIST. BLACK COLL. & UNIV. & MINORITY INSTS.
(FEB 1988)

(a) Of the total dollars it plans to spend under subcontracts, the Contractor has committed itself in its subcontracting plan to try to award a certain percentage to small business concerns and a certain percentage to small disadvantaged business (SDB) concerns, Historically Black Colleges and Universities (HBCUs) and Minority Institutions (MIs).

(b) To encourage placement of subcontracts with SDBs/HBCUs/MIs, the Contractor will be entitled to receive an incentive award under this clause, as follows:

(1) Where the SDB/HBCU/MI goal in this contract is less than five percent (5%) of the contract price and the Contractor both exceeds its SDB/HBCU/MI goal and awards more than five percent (5%) of the contract price (see FAR 15.801) to SDBs/HBCUs/MIs in performing this contract, the Contractor will receive ten percent (10%) of the difference between the actual dollar amount of subcontracts awarded to SDBs/HBCUs/MIs and five percent (5%) of the contract price.

(2) Where the SDB/HBCU/MI goal in this contract is equal to or greater than five (5%) of the contract price and the Contractor both exceeds its SDB/HBCU/MI goal and awards more than five percent (5%) of the contract price (see FAR 15.801) to SDBs/HBCUs/MIs in performing this contract, the Contractor will receive ten percent (10%) of the difference between the actual dollar amount of subcontracts awarded to SDBs/HBCUs/MIs and the SDB/HBCU/MI goal.

(c) The Contractor will not be entitled to receive an incentive award under this clause if the Contracting Officer determines that the amount by which the Contractor exceeded its goal was not due to the Contractor's efforts (e.g., a subcontractor cost overrun, or the award of subcontracts that had been planned but had not been disclosed in the subcontracting plan during contract negotiations, caused the actual subcontract amount to exceed that estimated in the subcontracting plan). Determinations made under this paragraph are not subject to the Disputes clause.

(d) If this is a cost contract, the limitations of FAR Subpart 15.9 may not be exceeded.

SECTION I - CONTRACT CLAUSES (cont'd)

52.225-7023 RESTRICTION ON ACQUISITION OF FOREIGN MACHINE TOOLS
(DEC 1987)

(a) This procurement concerns the acquisition of certain machine tools title to which will vest in the Government and which are subject to a statutory origin restriction.

(b) The Contractor agrees that those machine tools within the following Federal Supply Classifications (FSCs), to be delivered as end items under this contract, shall be of United States or Canadian origin: FSCs 3408, 3410-3419, 3426, 3433, 3441-3443, 3446, 3448, 3449, 3460 and 3461.

(c) For the purposes of this clause, a machine tool shall be considered to be of United States or Canada origin if, (i) it is manufactured in the United States or Canada, and (ii) the cost of its components manufactured in the United States or Canada exceeds 50 percent of the cost of all its components. The cost of components shall include transportation costs to the place of incorporation and into the end item and duty (whether or not a duty-free entry certificate may be used).
(AFAC 88-1)

52.231-7001 PENALTIES FOR UNALLOWABLE COSTS (FEB 1987)

(a) The Contractor is required, under the Allowable Cost and Payment clause in this contract, to submit final indirect cost rates within 90 days after the expiration of each of its fiscal years. The Contractor shall not include in any such submission any cost which is unallowable under the definition in Section 31.001 of the Federal Acquisition Regulation (FAR).

(b) If the Contracting Officer determines by clear and convincing evidence that a cost submitted by the Contractor in its proposal for settlement for indirect costs incurred is unallowable in accordance with (a) above, the Contractor shall be assessed a penalty equal to (1) the amount of the disallowed cost allocated to this contract plus (2) simple interest, to be computed on the funds the Contractor was paid in excess of the amount to which the Contractor was entitled [see paragraph 31.7001(c) of the Defense Supplement to the FAR]. The simple interest will be computed using the applicable rate effective for each six month interval prescribed by the Secretary of the Treasury pursuant to Public Law 92-41 (85 Stat. 97).

(c) If the Contracting Officer determines that a cost submitted by the Contractor in its proposal for settlement of indirect costs incurred includes a cost determined to be unallowable in the case of such Contractor before the submission of such proposal, the Contracting Officer shall assess, in addition to the penalty assessed in paragraph (b) above, a penalty in the amount equal to two times the amount of the unallowable cost.

(d) The determination of the Contracting Officer under (b) and (c) above is a final decision for the purpose of Section 6 of the Contract Disputes Act of 1978 (41 U.S.C. 605) and appealable in the manner provided in Section 7 of such Act (41 U.S.C. 606).

SECTION I - CONTRACT CLAUSES (cont'd)

(e) The Government is entitled to assess an additional penalty of not more than \$10,000 per proposal, if any penalty is assessed under (b) or (c) above.

(f) Contractor submission of unallowable costs is also subject to the provisions of 18 U.S.C. 287 and 31 U.S.C. 3729.

(g) Payment by the Contractor of any penalty assessed under (b) or (c) above does not constitute repayment to the Government of any unallowable cost which has been paid by the Government to the Contractor.

C. AF FAR Sup Clauses in Full Text

52.209-9001 NOTIFICATION OF DEBARMENT/SUSPENSION STATUS (APR 1987)

The Contractor shall provide immediate notice to the Contracting Officer in the event of being suspended, debarred or declared ineligible by any Department or other Federal Agency, or upon receipt of a notice of proposed debarment from a DOD Agency, during the performance of this contract.

52.235-9000 SCIENTIFIC/TECHNICAL INFORMATION (STINFO) (SEP 1985)

If not already registered, the Contractor shall register for Defense Technical Information Center (DTIC) service by contacting the following:

Defense Technical Information Center
AFIN: Registration Section (DTIC-DDR-B)
BLDG. 5, Cameron Station
Alexandria, Virginia 22304-6145
(202) 274-6871

To avoid duplication of effort and conserve scientific and technical resources, the Contractor shall search existing sources in DTIC to determine the current state-of-the-art concepts, studies, etc.

D. AFSC FAR Sup Clauses in Full Text

52.203-9000 STRAIGHT ARROW PROGRAM (APR 1986)

(a) "Straight Arrow" Program - The Air Force Systems Command has established the Straight Arrow Program to implement the laws, regulations, and policies relating to the personal standards of conduct of Air Force personnel. Each AFSC activity's Straight Arrow Committee meets to make and apply Straight Arrow policy to specific situations. The Contractor is invited to attend the meetings of this committee or to get the meeting minutes from the Contracting Officer.

SECTION I - CONTRACT CLAUSES (cont'd)

(b) All Air Force personnel must adhere to personal standards of conduct. Executive Order 11222, (8 May 1965) states that Government personnel must not only avoid actual conflicts of interest, but must refrain from engaging in conduct that gives the appearance of a conflict of interest. AFR 30-30 Standards of Conduct implements the Executive Order, and requires that Air Force personnel, and members of their families, will not solicit, accept, or agree to accept any gratuity from individuals or companies engaged in, or seeking to engage in, business or financial relations with any Department of Defense component.

(c) The Contractor is urged to educate its personnel about the Straight Arrow Program. All Contractor personnel working with Air Force personnel should be aware of the policies and objectives of the Straight Arrow Program.

52.216-9000 PAYMENT OF FEE (APR 1987)

The applicable fixed fee or target fee, set forth in the Schedule of this contract may be increased or decreased. As determined by the Contracting Officer it shall be paid as it accrues, in regular installments based upon the percentage of completion of work (or the expiration of the agreed-upon period(s) for term contracts).

52.222-9000 EQUAL OPPORTUNITY PREAWARD CLEARANCE OF SUBCONTRACTS
(APR 1987)

The prime Contractor shall request its preaward clearances through the Contracting Officer at least 30 calendar days before the proposed award date, unless the cognizant Department of Labor compliance office agrees to a shorter time.

52.243-9001 NOT-TO-EXCEED COST AGREEMENT (APR 1987)

(a) Prior to the issuance of an undefinitized contractual action under this contract, the Contracting Officer may solicit from the Contractor written agreement as to (1) the monetary adjustment (maximum increase or minimum decrease) to be made to the contract or (2) adjustment in the delivery schedule (or time of performance) by reason of the action. The Contracting Officer may also solicit a definitization schedule for the action and limitations to the adjustments of any other provisions of the contract which may be subject to definitization. Any written agreement shall be cited in the undefinitized contractual action and shall be a binding part of the contract. In no event shall the definitive price exceed the established limitations.

(b) Unless a different time period is agreed to, the agreement contemplated by the clause shall result in a written offer by the Contractor which is irrevocable for sixty days. This applies to both Contractor and Government proposed changes. The specified dollar amount in the offer will constitute the maximum upward equitable adjustment in contract price for the change.

SECTION I - CONTRACT CLAUSES (cont'd)

52.243-9002 CHANGES NOT REQUIRING MONETARY OR DELIVERY SCHEDULE
ADJUSTMENTS (APR 1987)

Deleted
PZ 0001
4/18/89

(a) Purpose. The purpose of this paragraph is to establish a procedure where one contractual amendment will be used both to direct changes of the type specified in the Changes clause of this contract, and to settle any question of equitable adjustments that might arise. This procedure shall apply only to those changes which will have no effect on the monetary value, delivery schedule, or other provisions of the contract.

(b) Procedure. When it is proposed to make a change under a Changes clause and both parties agree that such proposed change will not require any equitable adjustment as contemplated by the clause and this paragraph, the Contractor shall submit a written proposal or offer to accomplish the proposed change without an equitable adjustment to monetary value or delivery schedule of the contract. If, after receipt, the Contracting Officer determines that no adjustment is necessary, the Contractor's proposal or offer may be accepted by issuing an executed copy of an AFSC Form 702. The modification shall (i) be issued under the Changes clause; (ii) cite this paragraph; (iii) reference the Contractor's proposal or offer; and (iv) direct the changes to be made. The issuance of the modification shall constitute acceptance of the Contractor's proposal or offer, shall be binding on both parties, and shall be a full, complete, and final settlement for the directed changes.

52.243-9003 ADVANCE CHANGE ADJUSTMENT AGREEMENT (APR 1987)

Deleted
PZ 0001
4/18/89

Pursuant to the "Changes Not Requiring Monetary or Delivery Schedule Adjustments" clause, all proposed changes not exceeding an estimated adjustment amount of \$ _____, which also do not affect the contract delivery or performance schedules of any other contract provision, shall be deemed to be changes having no effect on the contract price within the meaning of the above cited clause.

52.244-9001 SUBCONTRACT MANAGEMENT (APR 1987)

(a) For purposes of this clause, "Major/Critical subcontracts" are those subcontracts which if failed, would seriously jeopardize the successful completion of the program within cost, schedule and/or technical performance specifications.

(b) Unless otherwise provided within this contract, the Contractor will be responsible for selecting subcontractors and effectively managing the subcontracts required in the performance of work. The Contractor will apply special management emphasis in surveillance of major/critical subcontractors' performance, to provide reasonable assurance that contractual requirements will be met. The Contractor will establish, maintain, and use, a subcontract management system that conforms to the minimum prescribed criteria below. Specifically, the Contractor will:

SECTION I - CONTRACT CLAUSES (cont'd)

(1) Identify all major/critical subcontracts (as defined in (a)) and notify the Contracting Officer in writing, indicating the areas and degree of risk involved. For subcontracts that require advance notification under the Subcontracts clause of this contract, identification of the major/critical subcontracts will be included in such notice. The Contractor will include additional subcontracts identified as major/critical by the Contracting Officer. With the concurrence of the Contracting Officer, subcontractors may be dropped from the special management emphasis category when they are no longer judged as critical.

(2) At regular intervals require the major/critical subcontractors to identify existing and potential technical, quality, cost (when appropriate), and schedule problems, and to propose resolutions. This would include devising workaround solutions for unacceptable risks. The Contractor will promptly notify the Contracting Officer of the problems and proposed solutions.

(3) Ensure that each subcontract contains all applicable specifications, special requirements, and clauses needed to carry out the terms of the prime contract.

(4) Select a contract type appropriate to the risks involved in the performance. Cost type contracts will be the preferred type when substantial development risk is identified.

(5) Consistent with obtaining reasonable competition, plan solicitation and evaluation of subcontractor proposals to minimize expense.

(6) Wherever feasible, encourage subcontractors to submit alternate proposals; for example, use off-the-shelf hardware to meet a contractual requirement instead of new development.

(7) Perform advance acquisition planning for each major/critical subcontract. Provide a written response to reasonable Contracting Officer requests for information on acquisition planning, before the solicitation is released.

(8) Promptly notify the Contracting Officer of any problems that develop on a major/critical subcontract which is likely to have a significant adverse impact on technical, quality, cost or schedule performance.

(9) Within the Contractor's responsibility for the technical performance of subcontracts, provide technical assistance to major/critical subcontractors for problem-solving when required.

(10) Establish a requirement for program reviews with major/critical subcontractors and periodically invite authorized representatives of the Contracting Officer to attend these reviews. The Contractor will also invite authorized representatives of the Contracting Officer to attend design reviews and problem-solving meetings as an observer.

SECTION I -- CONTRACT CLAUSES (cont'd)

(11) Include a provision in all subcontracts authorizing the Contracting Officer, or the representative, to visit the subcontractor facilities (with advance notification to the Contractor) to review progress and witness testing of the subcontract requirements.

(12) As required, provide adequate information in response to reasonable requests of the Contracting Officer or the authorized representative on subcontract performance.

(13) Submit status information for major/critical subcontracts in program progress reporting that is specified in other provisions of this contract.

(14) Review all subcontracts requiring major computer software development as possible candidates for major/critical classification.

(c) The Contractor's management of the subcontract effort will be continually reviewed by the Contracting Officer or authorized representative. Government participation in surveillance of the performance of major/critical subcontractors does not relieve the Contractor of any basic responsibility to manage the subcontracts effectively and efficiently. This surveillance is not intended to establish privity of contract between the Government and such subcontractors.

52.247-9003 SPECIALIZED CONTAINERS (OCT 1987)

During the development or production of _____, and before any costs for design of specialized containers are incurred, the Contractor must comply with MIL-STD-1510, Container Design Retrieval System.

Chg
P00044
6/3/94

SECTION I - CONTRACT CLAUSES

The following clause is added to Section I as follows:

<u>AF FAR SUP PARAGRAPH</u>	<u>CLAUSE TITLE/DATE</u>
5352.210-9000	Elimination of Class I Ozone Depleting Substances in Air Force Procurements (MAY 1993)

AF FAR SUP 5352.210-9000 - ELIMINATION OF CLASS I OZONE DEPLETING SUBSTANCES IN
AIR FORCE PROCUREMENTS (MAY 1993)

(a) It is the Air Force policy to eliminate the use of Class I Ozone Depleting Substances (ODS) in all Air Force procurements.

(b) Unless a specific waiver has been authorized, Air Force procurements:

(1) May not include any specification, standard, drawing or other document that requires the use of a Class I ODS in the design, manufacture, test, operation, or maintenance of any system, subsystem, item, component or process;

(2) May not include any specification, standard, drawing or other document that establishes a requirement that can only be met by use of a Class I ODS; and

(3) May not require the delivery of any item of supply that contains a Class I ODS or any service that includes the use of a Class I ODS.

(c) For the purposes of the Air Force policy, the following are Class I ODS:

(1) Halons: 1011, 1202, 1211, 1301 and 2402.

(2) Chlorofluorocarbons (CFC): CFC-11, CFC-12, CFC-13, CFC-111, CFC-112, CFC-113, CFC-114, CFC-115, CFC-211, CFC-212, CFC-213, CFC-214, CFC-215, CFC-216, and CFC-217.

(3) Other controlled substances: carbon tetrachloride, methyl chloroform, and methyl bromide.

(d) The Air Force has reviewed the requirements specified in this contract to reflect this policy. Where considered essential, specific authorization has been obtained to continue use of these substances. Notify the contracting officer if any additional Class I ODS have been required in the performance of this contract or will be delivered as part of end item(s) or service(s) under this contract.

Part III - List of Documents, Exhibits, and Other Attachments**Section J - List of Attachments**

<u>Document</u>	<u>Title and Date</u>	<u>No of Pages</u>	<u>Notes</u>
ATCH 1	Statement of Work, Rev E 10 Jan 90	20	
ATCH 2	Contract Data Requirements List, 26 Jan 90	49	(Deleted P00017 12/2/91)
ATCH 3 Exhibit A	Contract Data Requirements List, 26 Jan 90	34	(Deleted P00017 12/2/91)
ATCH 4	Contract Security Requirement Specification (DD254), 13 Sep 88	11	(P00002)
ATCH 5	System Requirements Document, 25 Aug 88	9	(Basic)
ATCH 6	Government Furnished Property List, 30 Aug 88	14	(Basic)
ATCH 7	Contractor Acquired Property, 31 Jan 89	13	(PZ0001)
ATCH 8	Small Business and Small Disadvantaged Business Subcontracting Plan, No 88-12, 12 Oct 88	6	(PZ0001)
ATCH 8A	Update to Small Business and Small Disadvantaged Business Subcontracting Plan No. 90-03, 17 Jan 90	9	
ATCH 8B	Small Business and Small Disadvantaged Business Subcontracting Plan, No 91-07, 5 Apr 91	10	(Add P00017 12/2/91)
ATCH 8C	Small Business and Small Disadvantaged Business Subcontracting Plan, No 93-03, dated 22 Feb 93	10	(Add P00038 3/3/93)
ATCH 8d	Small Business and Small Disadvantaged Business Subcontracting Plan, No 94-05, dated 11 May 94	9	(P00044 6/3/94)
ATCH 9	Statement of Work, Supplement 1, 1 Feb 91	5	(P00017)
ATCH 10	Contract Data Requirements List, 19 Jun 91 Seq No 1001-1026	51	(Add P00017 12/2/91)
ATCH 10	Contract Data Requirements List, 19 Jun 91, Seq No 1001-1022, 1025-1026	49	(P00041)
ATCH 11	Contract Data Requirements List, 19 Jun 91 Seq No A001-A027	47	(P00017)
ATCH 12	Contract Security Classification (DD Form 254), Revision 2, 13 Apr 92	9	(Add P00030 7/23/92)

Part III - List of Documents, Exhibits, and Other Attachments**Section J - List of Attachments**

<u>Document</u>	<u>Title and Date</u>	<u>No of Pages</u>	<u>Notes</u>
ATCH 13	Contract Security Classification Specification (DD Form 254) Revision 3, 21 Oct 92	11	(Add P00033 3/11/93)
ATCH 14	Program Manager Change Maureen A. Preta, Contracting Officer (MAP/CO letter dated 25 January 1994)	1	
ATCH 15	Change of Mailing Address and CDRL Distribution Maureen A. Preta, Contracting Officer (MAP/CO letter dated 25 January 1994)	1	
ATCH 16	Eglin Address Changes Maureen A. Preta, Contracting Officer (MAP/CO letter dated 21 November 1994)	1	

STATEMENT OF WORK (SOW)
FOR
REDCAP SIMULATOR UPGRADE PROGRAM

Revision E (As of 10 January 1990)

1.0 OBJECTIVE AND SCOPE

1.1 OBJECTIVE - The purpose of the Statement of Work is to provide Government requirements for the upgrade of the Real-time Electromagnetic Digitally Controlled Analyzer and Processor (REDCAP) Simulator facility. The primary objective of this upgrade program is to enhance the existing Air Force capability to evaluate the effectiveness of platforms and Electronic Combat (EC) equipment, techniques, concepts and tactics against a hostile Integrated Air Defense System (IADS).

1.2 SCOPE - The REDCAP Upgrade Program is a two-phase program. In Phase 1 the contractor developed system preliminary designs and procured critical material items and equipment need to support the upgrade schedule. For Phase 1 the Contractor shall develop a design through Preliminary Design Review (PDR) IAW MIL-STD-1521B of a simulation of the Soviet Union Airborne Warning and Control System (SUAWACS) Battle Management/Command, Control and Communications (BM/C³) functions, a design through PDR IAW MIL-STD-1521B of a simulation of the advanced threat Integrated Air Defense System (IADS) including an upgraded computer architecture, and a system specification IAW MIL-STD-1521B of each selected type of Early Warning/Ground Controlled Intercept (EW/GCI) radar. The Contractor shall design these simulations as fully integrated components of the REDCAP simulator. The Contractor shall develop a comprehensive program management plan for the upgraded REDCAP facility. In Phase 2 the contractor shall complete the design, fabrication, integration and test of the upgraded REDCAP system. In this phase the contractor shall develop a simulation of a SUAWACS BM/C³ functions, a simulation of the advanced threat IADS including an upgraded facility architecture, and simulations of selected types of EW/GCI and acquisition radars. The contractor shall develop these simulations as fully integrated components of the REDCAP simulator. The contractor shall also make necessary REDCAP facility modifications so that the Air Force can test and evaluate EC equipment, techniques, concepts and tactics against these new simulations. The contractor shall procure and test critical material items, components, and equipment necessary to complete the design, fabrication, integration and test and meet the Air Force's Required Assets Availability (RAA) date. The Contractor shall continue to work integration and commonality requirements with other designated Department of Defense Electronic Combat Test and Evaluation (ECT&E) facilities.

2.0 Applicable/Reference Documents: The following documents are applicable to the extent specified herein. In the event that any of these documents contradict requirements presented herein, this Statement of Work shall supersede.

2.1 Military/DOD Standards/Specifications/Documents

- a. MIL-STD-480B, Configuration Control - Engineering Changes, Deviations and Waivers, 15 Jul 88.
- b. MIL-STD-1803, Software Development Integrity Program (SDIP), 15 Dec 88.
- c. MIL-STD-483A (USAF), Configuration Management Practices for Systems, Equipment, Munitions and Computer Programs, 4 Jun 85.
- d. MIL-STD-490A, Specification Practices, 4 Jun 85.
- e. MIL-STD-1796, Avionics/Integrity Program (AVIP), 31 Jul 86.
- f. MIL-STD-965A, Parts Control Program, 13 Dec 85.
- g. MIL-STD-1472C, through Notice 3, Human Engineering Criteria for Military Systems, Equipment and Facilities, 17 May 87.
- h. DOD-STD-2167A, Defense System Software Development, 29 Feb 88.
Tailoring should be as follows:
 - (1) Delete paragraphs 4.2.3, 4.2.4, 4.6.2, 4.6.4a, 4.6.4e, 5.3.4d, 5.4.4c, 5.4.4d, 5.4.4e, 5.5.4b, 5.5.4c, 5.5.4d, 5.6.4a and 5.6.4d.
 - (2) In 4.2.9c delete words "schedule and." *Chg. p00017 12/2/91*
 - (3) In 4.3.1, last sentence - change to read "stressing the software at the limits and ..."
- i. DOD-STD-2168, Defense System Software Quality Program, 29 Apr 88.
- j. MIL-STD-1815A, Ada Programming Language. 22 Jan 83.
- k. MIL-STD-1521B, through Notice 1, Technical Reviews and Audits for Systems, Equipment and Computer Software, 19 Dec 85.
- l. DOD-D-1000B, through Amendment 4, Drawings, Engineering and Associated List, 13 May 83.
- m. DOD-STD-100C, through Notice 4, Engineering Drawing Practices, 4 May 83.
- n. MIL-A-87244, Avionics/Electronics Integrity Program Requirements, 31 Jul 86
- o. MIL-STD-1785, System Security Engineering Program Management Requirements, 12 Jun 89.
- p. AFR 800-23, US Air Force Systems Security Engineering Management, 23 May 86.
- q. MIL-STD-881A, Work Breakdown Structures for Defense Material Items, 25 Apr 75.

- r. DODI 7000.2, Performance Measurement for Selected Acquisitions, 1 Oct 80.
- s. DODI 7000.11, Contractor Cost Data Reporting, 27 Mar 84.
- t. AFSCP/AFLCP 173-5, Cost/Schedule Control System Criteria (Joint Implementation Guide), 1 Oct 87.
- u. MIL-STD-499A, Engineering Management, 1 May 74.
- v. USCSB 4-11, National Policy on Control of Compromising Emanations (C).
- v. Policy and Guidance on Control of Compromising Emanations, 1 Apr 79 (C)
- x. TCO/BCO DoD Letter, "Sensitive Compartmented Information TEMPEST Policy and Guidance," (C) 15 May 79.
- y. NSA 65-6, NSA Specification for RF Shielded Enclosures for Communications Equipment.
- z. NFIB/NFIC-9.1-47, Director of Central Intelligence Policy Statement, "US Intelligence Community Physical Security Standards for Sensitive Compartmented Information Facilities."
- aa. DCID 1/21, Physical Security Standards for Sensitive Compartmented Information Facilities, Sep 87.
- ab. DIAM 50-3, Physical Security Requirements for Sensitive Compartmented Information Facilities.
 - (1) NACSIM 5203, Guidelines for Facility Design and RED/BLACK Installations (C-NOFORN), Jun 82
 - (2) NACSIM 5109, TEMPEST Testing Fundamentals (C-NOFORN), May 73
 - (3) NACSIM 5204, Shielded Enclosures, (C), May 78
- ac. MIL-STD-481B, Configuration Control - Engineering Changes (Short Form), Deviations, and Waivers, 15 Jul 88.

2.2 System Requirements Documents (SRD)

- a. SRD for SUAVACS BM/C³ (U), dated 25 August 1988, with Appendix I (Revision 1) (S), dated 10 March 1989.
- b. SRD for IADS (U), dated 25 August 1988, with Appendix I (S), dated 23 June 1988.
- c. SRD for EW/GCI Simulator (U), dated 25 August 1988, with Appendix I (for Type A, B & C Radar Simulators) (S), dated 23 June 1988.

2.3 Intelligence Documents

- 2.3.1 SUAWACS BM/C³ - (Reference Attachment 1 - Recommended Reference Documents for SUAWACS BM/C³)
- 2.3.2 Advanced IADS - (Reference Attachment 2 - Recommended Reference Documents for Advanced IADS)
- 2.3.3 EW/GCI Simulators - (Reference Appendix I to SRD for EW/GCI Simulators Type A, B & C)
- 2.3.4 SIMVAL Test Requirements Document for REDCAP Upgrades (S), Mar 89.
- 2.3.5 Other intelligence documents determined applicable to this effort.
- 2.4 Other Government Documents
 - a. Draft REDCAP Facility Security Plan (FSP), undated.
- 2.5 Other Documents
 - a. Advanced IADS Simulator Requirements Study (S), dated 2 May 89.
 - b. Simulation Facility Computer Architecture Study (S), dated Feb 89.
 - c. Segment Specification for the BM/C³ Simulator of the upgraded REDCAP Simulator (U), with Supplement (S), 6 Nov 89.
 - d. Segment Specification for the Integrated Air Defense System (IADS) Network NET), Simulation of the upgraded REDCAP Simulator, (U), with Supplement (S), 3 Nov 89.
 - e. Segment Specification for EW/GCI Radar Simulators, (U), with Supplement (S), 3 Nov 89.
 - f. Segment Specification for the Architecture Segment of the upgraded REDCAP Simulator, 19 Oct 89.
 - g. System Specification for the Upgraded REDCAP Simulator (U), with Supplement (S), 11 Oct 89.

3.0 TASKS

3.1 SUAWACS BM/C³ - The Contractor shall provide a preliminary design of all hardware and software for a SUAWACS BM/C³ simulator. The Contractor shall also fabricate all hardware, code all software, and perform integration and test for the SUAWACS BM/C³ simulator. (DI-CMAN-80008A/T, DI-MCCR-80025A/T, DI-MCCR-80026A, DI-MCCR-80012A, DI-MCCR-80014A/T, DI-MCCR-80027A, DI-MCCR-80030A, DI-OCIC-80572, DI-CMAN-80534, DI-E-3102A, DI-E-7031/T, DI-MCCR-80029A, DI-MCCR-80013A, DI-E-3132)

3.1.1 The Contractor shall complete the design and fabrication of the simulator to satisfy the requirements of the SUAWACS BM/C³ SRD.

3.1.2 The Contractor shall use the design processes in accordance with DOD-STD-2167A, DOD-STD-2168, MIL-STD-1521B, and MIL-STD-499A.

3.1.3 The Contractor shall perform risk and cost reduction efforts, such as: perform trade-off studies; build and test breadboards and components, and test concepts to support the design; code and test selected software units and/or software components that are critical to the timing and/or sizing of the design. (DI-MGMT-80368/T)

3.2 Advanced IADS - The Contractor shall complete the design of all hardware and software of an advanced threat IADS simulation at the REDCAP. The Contractor shall also fabricate all hardware, code all software, and perform all integration and test for the Advanced IADS simulator. (DI-CMAN-80008A/T, DI-CMAN-80534, DI-MCCR-80025A/T, DI-MCCR-80026A, DI-MCCR-80012A, DI-MCCR-80014A/T, DI-MCCR-80027A, DI-MCCR-80030A, DI-QCIC-80572, DI-E-3102A, DI-E-7031/T, DI-MCCR-80029A, DI-MCCR-80013A, DI-E-3132)

3.2.1 The Contractor shall design the simulation to satisfy the requirements of the Advanced IADS SRD (reference paragraph 2.2 of this SOW).

3.2.2 The Contractor shall use the design processes in accordance with DOD-STD-2167A, DOD-STD-2168, MIL-STD-1521B, and MIL-STD-499A.

3.2.3 The Contractor shall perform risk and cost reduction efforts, such as: perform trade-off studies; build and test breadboards and components, and test concepts to support the design; code and test selected software units and/or software components that are critical to the timing and/or sizing of the design. (DI-MGMT-80368/T)

3.3 EW/GCI Radar Simulators - The Contractor shall complete the system design of all hardware and software of selected threat EW/GCI radar simulators. The Contractor shall also fabricate all hardware, code all software, and perform integration and test for the EW/GCI Radar simulators. The Contractor shall use the design processes in accordance with DOD-STD-2167A, DOD-STD-2168, MIL-STD-1521B, and MIL-STD-499A. The Contractor shall perform risk and cost reduction efforts, such as: perform trade-off studies; build and test breadboards and components, and test concepts to support the design; code and test selected software units and/or software components that are critical to the timing and/or sizing of the design. (DI-MCCR-80029A, DI-MCCR-80012A, DI-MCCR-80014A/T, DI-MCCR-80027A, DI-MCCR-80013A, DI-CMAN-80534, DI-CMAN-80008A/T, DI-MCCR-80025A/T, DI-MCCR-80026A, DI-MCCR-80030A, DI-MGMT-80368/T, DI-QCIC-80572, DI-E-3102A, DI-E-7031/T, DI-E-3132)

3.3.1 EW/GCI Simulator Type A - The Contractor shall develop a Type A simulator for radars as specified in the Advanced EW/GCI Simulator SRD (Reference paragraph 2.2 of this SOW). Intelligence documents shall be used as specified in the SRD.

3.3.2 EW/GCI Simulator Type B - The Contractor shall develop a Type B simulator for radars as specified in the Advanced EW/GCI Simulator SRD (Reference paragraph 2.2 of this SOW). Intelligence documents shall be used as specified in the SRD.

3.3.3 EW/GCI Simulator Type C - The Contractor shall develop a Type C simulator for radars as specified in the Advanced EW/GCI Simulator SRD (Reference paragraph 2.2 of this SOW). Intelligence documents shall be used as specified in the SRD.

3.4 REDCAP Facility Modifications - The contractor shall plan and perform all necessary facility modifications (electrical, mechanical, general construction, rearrangement, etc.) to the REDCAP which are required for the upgrade program.

3.5 Sensitive Compartmented Information Facility (SCIF)

3.5.1 The contractor shall design, fabricate, test and obtain certification for a SCIF that is compatible with the REDCAP theory of operation per specification contained in Publication DCID 1/21, "Physical Security Standards for Sensitive Compartmented Information Facilities", dated 1 Sep 87.

3.5.2 Shield Room - The contractor shall design, develop and test a shield room within the SCIF capable of supporting test and evaluation of current and forecast DoD Electronic Combat programs (e.g. B-1B/ALQ-161, ATF, B-2).

3.6 Material Procurement and Other Items - The Contractor shall procure and test critical material, components and equipment necessary to complete the design and meet the fabrication schedule of the simulators listed below. The Contractor shall procure the necessary critical elements of the supporting computer systems. The Contractor shall develop, maintain and deliver a critical item list and schedule for acquiring the critical items.
(DI-MGMT-80368/T)

3.6.1 SUAWACS BM/C³

3.6.2 Advanced IADS

3.6.3 Advanced EW/GCI Radars

3.6.3.1 EW/GCI Simulator Type A

3.6.3.2 EW/GCI Simulator Type B

3.6.3.3 EW/GCI Simulator Type C

3.6.4 Automated Data Processing Environment: The contractor shall develop an automated data processing environment capable of supporting the upgraded REDCAP architecture and its simulators.

3.7 Configuration Management

3.7.1 Configuration Management: Configuration management procedures shall be established in accordance with MIL-STD-480B, MIL-STD-481B, MIL-STD-483A, MIL-STD-490A, and DOD-STD-2167A (paragraphs 4.1.6 and 4.5). The contractor shall ensure that the necessary configuration management requirements of this SOW are applied to all subcontractors. The contractor shall develop a REDCAP Simulator Facility Configuration Management Plan (CMP) suitable for use on all REDCAP contracts. The CMP will be used internally to ensure conformance with

the provisions applicable to configuration management. (DI-CMAN-80405/T, DI-MCCR-80030A)

3.7.2 Baselines - Configuration identification constitutes a baseline only when formally designated (authenticated) and contractually established as a basis for formal change control. Functional, allocated, and product baselines, or their current approved configuration identification, should be mutually consistent and compatible. Unless waived by the government, the order of precedence shall be: (1) functional, (2) allocated, and (3) product. Configuration identification requirements should be traceable to the top-level specification.

3.7.2.1 Functional Configuration Identification - The contractor shall generate and update as required the system and segment specifications defining the functional baseline for the REDCAP Upgrade tasks. The functional baseline will be established upon approval and authentication of these specifications and successful completion of the applicable (segment) System Design Review. (DI-CMAN-80008A/T)

3.7.2.2 Allocated Configuration Identification - The contractor shall generate and update as required the hardware development specifications, the software requirements specifications, and interface requirements specifications defining the allocated baselines for the REDCAP upgrade tasks. The allocated baselines will be established upon approval and authentication of the applicable development specifications and successful completion of the segment Software Specification Review (SSR) (for software) and Critical Design Review (CDR) (for hardware). (DI-E-3102A, DI-MCCR-80025A/T, DI-MCCR-80026A)

3.7.2.3 Product Configuration Identification - The contractor shall generate and update as required the hardware product (function) specifications and the software product specification defining the product baselines for the REDCAP upgrade tasks. The product baselines will be established upon approval and authentication of the applicable product specification and successful completion of the segment Physical Configuration Audit (PCA). (DI-E-3132, DI-MCCR-80029A)

3.7.3 Configuration Control

3.7.3.1 Engineering Changes - Engineering changes affecting an established baseline shall be accomplished in accordance with MIL-STD-480B, as supplemented by MIL-STD-483A, Appendix XIII, when applicable. The provisions of MIL-STD-481B are applicable for engineering changes affecting any unbaselined hardware and software in the existing REDCAP simulator system. The government shall be notified of proposed changes via Advance Change Study Notice(s) (ACSN) per MIL-STD-483A, paragraphs 3.13 and 5.1a. The engineering change preparation cost(s) of ECPs, if any, shall be part of the overall cost of the ECP(s). For disapproved ECPs, preparation costs shall be a part of the contractor's sustaining engineering support. (DI-CMAN-80639/T, DI-CMAN-80644, DI-E-3127A)

3.7.3.2 Deviations and Waivers - A deviation or waiver to an established baseline shall be accomplished in accordance with MIL-STD-480B. (DI-CMAN-80640, DI-CMAN-80641)

3.7.3.3 Specification Authentication and Maintenance - The requirements of MIL-STD-490A, paragraph 3.3, MIL-STD-483A, paragraphs 3.4.9 and 3.5, and MIL-STD-480B, paragraph 5.6 and appendix E, are applicable. The contractor should submit proposed changes in accordance with the CDRL for government review and approval prior to specification authentication. (DI-CMAN-80643)

3.7.3.4 Documentation Configuration Control - The contractor shall conform with the provisions of MIL-STD-483A, Appendix X, and DOD-STD-2167A, paragraph 4.5.2. The contractor is responsible for maintaining configuration control of the various simulator configurations and changes thereto required for testing, including temporary changes, and operational support. Documentation changes are subject to government review and approval as required by the CDRL.

3.7.4 Subcontractor Management - The contractor should comply with the provisions of DOD-STD-2167A, paragraph 4.1.6, and DOD-STD-2168, paragraph 5.8, as a minimum.

3.7.5 Configuration Audits - Functional Configuration Audits (FCA) and Physical Configuration Audits (PCA) shall be performed on each HWCI and CSCI for each system segment IAW MIL-STD-1521B, Appendixes G and H respectively. All data necessary to perform these audits shall be available for review at these audits. (DI-A-7088, DI-A-7089, DI-A-3024A/T)

3.8 Data Management/Control

3.8.1 Data Management System - The Contractor shall establish and maintain procedures for a Data Management System which shall, as a minimum, include:

- a. Designating a focal point for integrating the data management effort and any contractor-recommended changes, additions or deletions of data items.
- b. Controls for data preparation to prevent duplication of previously or concurrently developed data.
- c. Distribution of all data to all addressees by the most economical method corresponding to the delivery schedules.
- d. Maintaining records of data submittals and forecasting of future submittals to assure timely delivery. (DI-MISC-80167A/T)

3.8.2 Data Items - Contractor data to be delivered to the procuring agency shall be delivered in accordance with the CDRL.

3.8.2.1 Drawing, Engineering and Associated Lists - The Contractor shall maintain an Engineering release system which meets the minimum requirements of MIL-STD-483A, Appendix X. All REDCAP Upgrade tasks' (new and SUAWACS) drawings shall conform to DOD-D-1000B and DOD-STD-100C, Level 2. Other drawings shall be accomplished IAW the Configuration Management Plan. In-process reviews may be conducted in conjunction with the Program/Design Reviews and Technical Interchange Meetings or when deemed necessary by the Government. The Contractor shall make engineering drawings available for Government review upon request. (DI-E-7031/T)

3.8.2.2 Data Accession List/Internal Data - The Contractor shall maintain a complete list of all internal data and computer programs generated by the Contractor as a result of the contract. The data shall be listed by identification number, title and date. All data not required by the CDRL shall be considered as contractor's format and schedule and shall be listed on the data accession list. Any of the listed documents will be furnished on an as required basis when requested by the Government. The cost of providing such data shall have been included as a part of the basic contract cost and no other charge shall be made by the Contractor for such services. (DI-A-3027A)

3.8.2.3 Operations/Maintenance Documentation - The Contractor shall retain in his files, in an up-to-date condition, raw data generated during the performance of contract tasks sufficient to be able to generate the following manuals for internal use:

- a. R&D Equipment Information Report. (DI-S-30599)
- b. Software Programmer's Manual. (DI-MCCR-80021A)
- c. Computer System Operator's Manual. (DI-MCCR-80018A)
- d. Software Users' Manual. (DI-MCCR-80019A)

3.9 Integrity and Product Assurance - The contractor shall establish and maintain an effective Integrity and Product Assurance Program in accordance with the requirements of the contract.

3.9.1 Avionics/Electronic Integrity Program (AVIP) - The Contractor shall formalize a disciplined, deterministic product assurance process in accordance with MIL-STD-1796. The Contractor shall define the intended operational use of the simulators in this contract and then design the hardware to satisfy that use. The Contractor shall consider reliability and supportability features as part of the design process.

3.9.1.1 Avionics Integrity Master Plan (AIMP) - The Contractor shall develop and implement an AIMP. The plan shall define the Contractor's design process, management organization, tasks and schedule for achieving system integrity. (DI-GDRQ-80435)

3.9.1.2 Avionics Integrity Program Requirements - The Contractor shall perform only those tasks called out in the Avionics Integrity Program Requirement Specification (MIL-A-87244) per its handbook that are applicable to laboratory simulators.

3.9.1.2.1 The availability and physical usage of the SUAWACS BM/C³ simulation shall be as listed in the SRD for SUAWACS BM/C³ Simulation (reference paragraph 2.2 of this SOW), paragraphs 3.3 and 3.4 including their subparagraphs).

3.9.1.2.2 The availability and physical usage of the Advanced IADS simulation shall be as listed in the SRD for Advanced IADS Simulation (reference paragraph 2.2 of this SOW), paragraphs 3.3 and 3.4 including their subparagraphs).

3.9.1.2.3 The availability and physical usage of the advanced EW/GCI Radar Simulators shall be as listed in the SRD for EW/GCI Simulator Type A, B, or C (reference paragraph 2.2 of this SOW), paragraphs 3.3 and 3.4 including their subparagraphs).

3.9.1.3 Avionics/Electronic Integrity Program Technical Report (AVIP-TR) - The Contractor shall document the results of trade studies and reliability, maintainability and supportability analyses. (DI-GDRQ-80436)

3.9.2 Parts Control Program: The Contractor shall establish, implement, and maintain a parts control program for the REDCAP facility (including existing and new equipment) in accordance with the criteria established below.

3.9.2.1 Intent - The parts control program shall be established for and targeted to the requirements of the REDCAP Facility. These include the service life of the facility, its mode of use, its evolutionary characteristics, and its operating environment. Specifically, the service life of the facility is on the order of twenty years. Over this period many changes will be made to the facility because of the needs of individual users and also because of changes in threat intelligence. Also, the upgraded facility will consist of both new equipment and equipment built the past 15 or more years. The equipment will be operated in a nearly ideal environment with carefully controlled temperature and humidity and subjected to a negligible amount of shock and vibration. Reproduction of the equipment for use in another facility will, in all likelihood, be limited to certain specific subsystems. Parts control does not apply to commercial off-the-shelf parts or modified GFE (MIL-STD-965, Paragraphs 4.7 and 4.8).

The parts control program must support these requirements yet still recognize the upgrade program's compressed schedule.

3.9.2.2 Program Parts Selection List (PPSL) - The contractor shall establish and maintain a PPSL. This PPSL shall be derived from the parts list used for the SUAWACS Radar Simulator and become the baseline PPSL for all future upgrades. These parts shall be reviewed as to their acceptability for inclusion in this PPSL. Parts not on the PPSL shall be considered nonstandard parts and can only be used as described in Section 3.9.2.4. Nonstandard parts can be added to the PPSL (and thus become standard parts) under the conditions outlined in Section 3.9.2.3. (DI-MISC-80072/T)

3.9.2.3 Additions to the PPSL - The Contractor shall develop an internal procedure for the addition of nonstandard parts to the PPSL. This procedure must address current and long term availability of the parts, expected reliability, use and experience on other programs, relationship to other parts on the PPSL and parts previously rejected for addition to the PPSL. (DI-MISC-80072/T)

3.9.2.4 Nonstandard Parts - Use of nonstandard parts is discouraged. The Contractor must obtain Government permission for use of nonstandard parts IAW Contractor-prepared/Government-approved procedures. Permission for use of nonstandard parts will be granted only for a specific application. The Contractor shall consider the requirements of SOW paragraph 3.9.2 and second source availability, vendor integrity and past history, maintainability, reliability, future availability, and supportability.

3.9.2.5 Existing Equipment - Portions of the upgraded facility will include existing equipment. Any redesigned equipment shall use parts from the PPSL or follow the procedures described in paragraph 3.9.2 and its subparagraphs above. Parts of the existing equipment that are not redesigned are exempt from the parts control program. Alternatively, the existence of a part in the previously built equipment does not automatically qualify it for inclusion on the PPSL. Any such part must undergo the evaluations previously described in order to be used. (DI-MISC-80072/T)

3.9.2.6 Derating - The Contractor shall develop a general derating requirement for all parts which is based on obtaining system availability and service life.

3.9.2.7 Recommended Spare Parts List - The Contractor shall develop a recommended spare parts list from the documents referenced in paragraphs 3.9.2. and its subparagraphs. (DI-ILSS-80134)

3.9.2.8 Spare Parts Procurement - The Contractor shall procure all necessary spares to meet the required system availability. Spares procurement shall also be sufficient to ensure operation and maintenance of the system until its accountability can be transferred to the applicable REDCAP Facility Support contract.

3.9.3 Software Quality Assurance - The Contractor shall plan, develop, and implement a software quality assurance program IAW DOD-STD-2168 and document that plan in a Software Quality Program Plan (SQPP). Quality factors shall include the ability to update and upgrade software while retaining the ability to operate in real-time. (DI-QCIC-80572)

3.9.4 Design Specification Review - The contractor shall provide data in the FTD required format documenting the following areas in support of the Design Specification Validation Review (DSVR) process:

- a. the general threat system information
- b. threat system command, control and communications
- c. threat system antennas
- d. threat system transmitters
- e. threat system receivers.

Simulator system parameters and any other pertinent simulator information shall be provided for each of the parameters required by the Design Specification Validation Criteria. (DI-A-3024A/T)

3.10 Government Furnished Equipment (GFE) and Contractor Furnished Equipment (CFE)

3.10.1 GFE

3.10.1.1 REDCAP Facility - The Contractor shall have use of the REDCAP Facility as required for design, fabrication, integration and test of the hardware and software developed under these efforts.

3.10.1.2 Computer Resources - The Contractor shall have use of all government furnished computer hardware and software provided for the REDCAP Upgrade Program.

3.10.2 CFE

3.10.2.1 The Contractor shall acquire all necessary equipment (e.g., computer resources) to accomplish the requirements of the REDCAP Upgrade Program.

3.11 Cost/Schedule Control Systems

3.11.1 Cost/Schedule Control Systems Criteria (C/SCSC): The Contractor may use and maintain a cost/schedule control system previously accepted by a DOD component as meeting the requirements of DOD C/SCSC. Lacking an accepted system, the Contractor shall establish, use and maintain a cost/system control system meeting the criteria set forth in DODI 7000.2 and using AFSCP/AFLCP 173-5 as a guide. The contractor shall document the results of its cost/schedule control management with a monthly Cost Performance Report (CPR), a quarterly Contract Funds Status Report (CFSR), and a Functional Cost Hour Report (FCHR). (DI-F-6000C/T, DI-F-6004B/T, DI-F-6007/T)

3.11.1.1 C/SCSC Demonstration and Review: The contractor shall demonstrate that the operation of his proposed system(s) meet(s) the established criteria in accordance with the guide. As a part of this demonstration, review, and acceptance procedure, the contractor shall furnish a description of the C/SCSC applicable to this contract in such form and detail as indicated by the guide. The contractor shall provide access to all pertinent records, data, and plans for the conduct of the review. The contractor shall identify accepted systems by title and date of operating procedures, documents and/or subsystems, which shall then become a part of this contract by attachment or reference.

3.11.1.2 Financial Report Reconciliation: The contractor shall reconcile the deliverable financial reports when issued with the same "as of date" (+/- ten (10) working days) to account for differences in cost and/or schedule variances and in ground rules required for the completion of different sets of reports. The contractor shall document this reconciliation as an addendum to the CPR. (DI-F-6000C/T)

3.11.1.3 C/SCSC Changes: The contractor shall identify proposed changes to accepted systems. The government will advise the contractor as to the acceptability of those proposed changes.

3.11.1.4 C/SCSC Surveillance: The contractor shall provide access to all records and data requested by the government.

3.12 Program Management

3.12.1 Manpower/Personnel Resources

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3.12.1.1 The contractor shall assign an engineering/technical staff with sufficient resources to design the REDCAP upgrades.

3.12.1.2 The contractor shall assign a program manager who will be responsible to act as liaison between the USAF, local DCAS personnel, and the Calspan engineers/technicians. The program manager shall direct the contractor's efforts through a management system which shall provide program visibility on the status of achieving schedule and performance objectives. The management system shall identify all work to be accomplished, identify the responsible organization, and provide up-to-date schedules of all tasks. (DI-MGMT-80368/T)

3.12.1.3 The Contractor shall develop a comprehensive program management plan for the upgraded REDCAP facility. (DI-E-7144)

3.12.2 Contract Work Breakdown Structure (CWBS) - The Contractor shall develop in Phase 1 and update in Phase 2 a CWBS and its dictionary IAW concepts set forth in MIL-STD-881A. (DI-A-3023/T)

3.12.3 Master Program Schedule - The Contractor shall also submit in Phase 1 and 2 a Master Program Schedule for Government approval. (DI-MISC-80167A/T)

3.12.4 Safety Management - The current Calspan Corporation and DCASMA industrial and facility safety requirements shall be adhered to during the construction, modification, and operation of the REDCAP facility.

3.12.5 Simulator System Engineering Management Plan (SSEMP) - The Contractor shall update the SSEMP developed in Phase 1. Special emphasis shall be placed upon the transition of current REDCAP simulation capabilities into the upgraded architecture. The Contractor shall also address how the transition down-time of these current capabilities can be minimized. (DI-E-7144)

3.12.6 System Security Plan (SSP) - The Contractor shall develop a SSP IAW the requirements of MIL-STD 1785 and "AFR800-23" DI-MISC-80839, DI-MISC-80841/T

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3.12.7 Parametric Data Analysis - The Contractor shall develop the data and complete AFSC Forms 2540 (Hardware Parametric Data Sheet) at essentially the Line Replaceable Unit (LRU) and AFSC Forms 2499a (Software Parametric Information) at the CSCI level. (DI-F-30207/T)

3.13 Program/Design Reviews and Audits

3.13.1 The contractor shall conduct the reviews listed below in accordance with a government approved master schedule. When reasonable, reviews shall be combined to reduce the need for travel. In addition to the reviews listed below, the Contractor shall host working level Technical Interchange Meetings (TIM), as needed. (DI-A-7088, DI-A-3024A/T, DI-MISC-80167A/T)

3.13.1.1 SUAVACS BM/C³ - The SUAVACS BM/C³ reviews shall include System Requirements Review Number One (SRR #1), System Requirements Review Number Two (SRR #2), System Design Review (SDR), Software Specification Review (SSR), Preliminary Design Review (PDR), Critical Design Review (CDR), Quarterly

Program Reviews (QPR), Test Readiness Reviews (TRR), Functional Configuration Audit (FCA), and Physical Configuration Audit (PCA).

3.13.1.2 Advanced IADS - The advanced IADS reviews shall include SDR, SSR, PDR, CDR, QPR, TRR, FCA, PCA and a Formal Qualification Review (FQR).

3.13.1.3 EW/GCI Simulators - The advanced EW/GCI radar simulator reviews shall include SRR #1, SRR #2, SDR, SSR, PDR, CDR, QPRs, TRR, FCA and PCA. PDR, CDR, TRR, FCA and PCA for each Radar Simulator Type may be held separately, with government approval.

3.13.1.4 Simulator Integration Study - The Simulator Integration Study review shall include Initial Program Review (IPR) and Final Program Review (FPR).

3.13.1.5 Other Efforts - Progress in facility modifications and other efforts on this contract shall be reported at the reviews listed above.

3.13.2 Program/Design Review Content and Scheduling Events

3.13.2.1 SRR #1 - This review shall emphasize the threat definition that will be used throughout the design process. The Contractor shall fill-in the intelligence gaps to define a complete and consistent threat estimate which actually can be simulated. The Contractor shall use MIL-STD-1521B Appendices A and J as a guide for this review. SRR #1 shall take place no later than three months after start of the effort. (DI-A-7088, DI-A-7089, DI-A 3024A/T)

3.13.2.2 SRR #2 (Working Level) - This review shall emphasize the functional merging of general requirements for any simulator (such as calibration, set-up, ease of operation and maintainability) and the specific requirements to simulate the threat to produce a preliminary requirements allocation. Trade studies, breadboards and concept testing shall be addressed to the extent applicable. SRR #2 shall take place after SRR #1 and prior to SDR. The use of briefing materials is optional. (DI-A-7088, DI-A-3024A/T)

3.13.2.3 SDR (Working Level) - This review shall consist of working level discussions after the System/Segment Specification has been written. The Contractor shall use MIL-STD-1521B Appendix B as a guide to the extent relevant to the topics and information to be presented and discussed. The use of briefing materials is optional. (DI-A-7088, DI-A-3024A/T)

3.13.2.4 SSR (Working Level) - This review shall consist of working level discussions after the System/Segment Specification has been approved and the Software Requirements Specification and the Interface Requirements Specification have been written. The Contractor shall use Appendix C of MIL-STD-1521B as a guide to the extent relevant to the topics and information to be presented and discussed. The use of briefing materials is optional. (DI-A-7088, DI-A-3024A/T)

3.13.2.5 PDR - This review shall address the preliminary design of the system. The Contractor shall use Appendix D of MIL-STD-1521B as a guide to the extent relevant to the topics and information to be presented and discussed. (DI-A-7088, DI-A-7089, DI-A-3024A/T)

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3.13.2.6 CDR - This review shall address the critical design of the system/segment. The Contractor shall use Appendix E of MIL-STD-1521B as a guide to the extent relevant to the topics and information to be presented and discussed. (DI-A-7088, DI-A-7089, DI-A-3024A/T)

3.13.2.7 IPR (Working Level) - The Contractor shall present the plans and initial concepts of the Simulator Integration Study at the IPR. The IPR shall occur within 90 days after start of the effort. (DI-A-7088, DI-A-3024A/T)

3.13.2.8 FPR - The Contractor shall present the final results of the Simulator Integration Study at the FPR. The FPR shall occur within nine (9) months after start of the effort. (DI-A-7088, DI-A-7089, DI-A-3024A/T)

3.13.2.9 QPR - The Contractor shall present and support a QPR each quarter. The QPR shall be located at either the government program office or the Contractor's facility (location to be determined for each review). The purpose of the QPR will be to review the status of the program by highlighting significant events, accomplishments, and issues for that quarter. The QPR is intended to be both an information exchange and a forum to resolve important programmatic issues between the government and the contractor. (DI-A-7088, DI-A-7089, DI-A-3024A/T)

3.13.2.10 TRR (Working Level) - Reference paragraph 3.15.6 of this SOW.

3.13.2.11 FCA - Reference paragraph 3.7.5 of this SOW.

3.13.2.12 PCA - Reference paragraph 3.7.5 of this SOW.

3.13.2.13 FQR - The contractor shall perform and support an FQR for the Architecture subsegment of the IADS segment. The purpose of this review is to formally qualify that portion of the REDCAP upgrade (Architecture) responsible for integrating all existing/upgraded REDCAP simulators. (DI-A-7088, DI-A-7089, DI-A-3024A/T)

3.14 SIMULATOR INTERFACE EFFORTS - The Contractor shall accomplish the following tasks to develop interfaces between the REDCAP and other DoD Electronic Combat Test and Evaluation (ECT&E) facilities. For the purposes of this paragraph, the interfaces are defined as the real-time and nonreal-time data exchanges and common test programs used for complementary usage of test assets at two or more facilities.

3.14.1 AFEVES/REDCAP Interface Control Working Group - The Contractor shall support an AFEVES/REDCAP Interface Control Working Group (ICWG). The purpose of this ICWG will be to control areas of commonality of the AFEVES and REDCAP Upgrades, define common requirements, investigate existing equipment, (i.e. "off the shelf") and optimize future interfaces between the facilities. The Contractor shall examine trade-offs to optimize joint testing capabilities between both facilities, provide supporting rationale, and provide recommendations to ASD/RWW towards meeting the established ICWG goals. The working group shall be co-chaired by one General Dynamics representative and one Calspan representative. (DI-A-3024A/T)

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3.14.2 Real-time Remote Interface Study - The contractor shall perform a study of optimal real-time interfaces between the upgraded REDCAP and Navy EC test assets at the Naval Air Test Center (Patuxent River). The purpose of this study is to provide the information needed for a future feasibility demonstration of real-time integration of upgraded REDCAP with other national ECT&E assets. The Contractor shall define the necessary data content and data link characteristics (bandwidth, security requirements, etc.) and other requirements and actions necessary to prepare for a feasibility demonstration in Phase 2. A plan fully defining the scope of this study shall be presented at the Initial Program Review referenced below. The results of the final report shall be presented at the Final Program Review. (DI-A-3024A/T, DI-A-7088, DI-A-7089, DI-A-5029/T)

3.14.3 Simulator Integration Study - The Contractor shall conduct a study to recommend Air Force actions to provide interfaces between the REDCAP and other DoD ECT&E facilities. These interfaces are to be developed in accordance with the Air Force EC test process (referenced AFECO/ET briefing, Air Force Electronic Combat Test Process, 17 Mar 89). Implementation of the EC test process will require interfaces between digital models developed by the Electronic Combat Digital Evaluation System (ECDES) and Red Mission Analysis (RMA) and hybrid facilities in the Air Force EC Test Architecture which includes REDCAP, AFEWES, the EC Integrated Test Facility (ECITF) and PRIMES. Interfaces may be improved through development of common components, evolution of hybrid simulators from baseline digital models, utilization of common data formats, etc..

a. Baseline Digital Models - The Contractor shall conduct a study to determine optimal interfaces of the REDCAP with the ECDES and the RMA programs. This study shall include a review and evaluation of the REDCAP and the ECDES/RMA specifications, design data, and other documentation. The Contractor shall also determine how to utilize input/output (I/O) data from REDCAP scenario generation, electromagnetic environment generation, and weapon system models/simulators for interchange with ECDES/RMA. The Contractor shall recommend as to what extent the REDCAP (and other hybrid simulators) could evolve from baseline digital models.

b. Hybrid Simulation Facilities - The Contractor shall also conduct a study to determine optimal interfaces between the REDCAP, AFEWES, and ECITF. The Contractor shall review and evaluate specifications, design data, and other documentation, as well as determine how to utilize I/O data from REDCAP for interchange with the AFEWES and ECITF.

c. The Contractor shall develop a study plan for the above issues fully defining the scope of the study. This plan will be presented three months after the start of the effort at an Initial Program Review. A final report for this task shall identify recommendations for improving interfaces between the REDCAP and other ECT&E facilities (AFEWES/ECDES/RMA/ECITF), and shall recommend follow-on actions to implement such improvements. The results of the final report shall be presented at the Final Program Review. (DI-A-3024A/T, DI-A-7088, DI-A-7089, DI-A-5029/T)

3.15 Test and Evaluation

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3.15.1 Test Planning - The Contractor shall develop and document, for government approval, a Master Test Plan for all formal HWCI/CSCI, segment, and REDCAP system level testing. As part of the Master Test Plan, the Contractor shall identify those CIs that would not be tested at the CI level due to technical and/or cost effective reasons, and document the justification and proposed plan to test them at the subsegment level. The Contractor shall also address Simulator Validation (SIMVAL) testing. (DI-T-30714)

3.15.2 Hardware Configuration Item Testing - The Contractor shall develop, for government approval, HWCI Formal Qualification Test (FQT) Procedures, HWCI Acceptance Test Procedures, conduct testing IAW those procedures, and document the results in FQT and Acceptance Test Reports. (DI-NDTI-80603, DI-T-5329)

3.15.3 Computer Software Configuration Item Testing - The Contractor shall plan and develop, for government approval, Software Test Plans and Software Test Descriptions for CSCIs, conduct testing IAW those plans and descriptions, and document the results in Software Test Reports. (DI-MCCR-80014A/T, DI-MCCR-80015A, DI-MCCR-80017A)

3.15.4 Segment/Subsegment Testing - The Contractor shall develop and document for government approval, segment and subsegment test procedures which demonstrate compliance with all segment specification requirements and limitations. The Contractor shall conduct the testing IAW those test procedures and document the results in test reports. (DI-NDTI-80603, DI-T-5329)

3.15.5 System Testing - The Contractor shall develop for government approval, system test procedures which demonstrate proper operation of the segment(s) within the REDCAP system (includes all interface functions). The Contractor shall conduct testing IAW those test procedures and document the results in test reports. (DI-NDTI-80603, DI-T-5329)

3.15.6 Test Readiness Review(s) (TRRs) - The Contractor shall conduct the review(s) prior to formal testing of the segment HWCI/CSCI to ensure adequate test resources and documentation are available to support formal (government witnessed) qualification testing. The content of the final Master Test Plan and test procedures/descriptions shall be presented by the Contractor at the reviews. The content of the plans and procedures shall be evaluated for approval by government representatives. (DI-A-7088, DI-A-7089, DI-A-3024A/T, DI-NDTI-80603, DI-MCCR-80014A/T, DI-MCCR-80015A)

3.15.7 Other Testing

3.15.7.1 Simulation Validation (SIMVAL) - SIMVAL Testing addresses any threat baseline IDIP requirements essential to the validation process that are not covered by other formal testing. Formal testing shall be completed before the segment audits. The contractor shall develop a SIMVAL test plan documenting all threat baseline IDIP requirements (as tailored by FTD/TTIEV) and referencing the formal test procedures ("Para 3.15.2- 3.15.5") which address these requirements. This test plan shall be augmented by detailed SIMVAL test procedures for those IDIP requirements not addressed by other test procedures. After SIMVAL testing is complete, the contractor shall document the results of all SIMVAL test procedures in a single SIMVAL Test Report. Top level SIMVAL

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test requirements are described in "SIMVAL Requirements Document for REDCAP Upgrades" (reference paragraph 2.3.4 of this SOW). It is estimated that SIMVAL will require up to 60 weeks of testing: approximately 26 weeks for set-up and 34 weeks for dedicated SIMVAL testing (see referenced SIMVAL Requirements Document for breakout of this estimate). SIMVAL testing shall be performed incrementally in conjunction with other testing, as applicable (e.g., vendor and acceptance testing). (DI-T-3709A/T, DI-NDTI-80603, DI-T-5329)

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add "/T" after each DID number reference for CDRLs A006, A014, A019, A020, A025, and A026.

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ATTACHMENT 1
RECOMMENDED REFERENCE DOCUMENTS FOR SUAWACS BM/C³

- a. FTD- 1732I-709-84, MAINSTAY C3 Intelligence Data Input Package (IDIP), FTD, May 84 (S-NF-WN-FGI).
- b. FTD-1370I-872-85-SAO, MAINSTAY C3 IDIP, Supplement 1, FTD, Feb 85 (TS-SI/TK).
- c. DST-2610R-042-86-SAO-RPT 8, MAINSTAY A Command, Control, and Communications (C3) System, 29 Apr 86 (TS-SI-TK).
- d. DST-1350S-025-87, Soviet Airborne Warning and Control System - MOSS, MAINSTAY, and MADCAP, to be published soon (S-NF-WN).
- e. DST-2601S-040-84-SAO, (Draft) Defense Data Systems (Sections IV, V, VII, VIII, XII, XIII, XV), Date TBD (TS-SI-TK-NF-WN).
- f. FTD-2660P-127/84-86, The MAINSTAY A Satellite Communications (SATCOM) Capability, FTD, 22 Aug 86 (S-REL UK/CAN-WN)
- g. DST-1350S-025-86, MAINSTAY A Support System, 5 Sep 86 (S-NF-WN).
- h. FTD-1710I-871-85, (Classified Title), Mar 85 (S-NF-WN)
- i. FTD-2660P-127/62-88, Soviet AWACS Reaction Analysis; Target and Detection Interceptor Guidance, 15 Apr 88 (S-NF)
- j. Other applicable threat intelligence/technical documentation required for this effort.

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ATTACHMENT 2
RECOMMENDED REFERENCE DOCUMENTS FOR ADVANCED IADS

- a. FTD-1370R-437-80, VP-11 Intelligence Data Input Package, 15 Jan 80 (S-NF-WN)
- b. VP-02U/03U/04U, Subsystem Intelligence Data Input Package, Oct 82 (S-NF-WN)
- c. SRI FTC-RM-21, Strategic Air Defense Penetrating, ADZ Resource Management - A Preliminary Assessment, 1982 (S-NF-WN)
- d. SRI, Strategic Air Defense - SAM Brigade Command and Control Operations, 1982 (S-NF-WN)
- e. FTD-2660F-636-82, TED, V3, Air Defense Threat, 1982 (S-NF-WN)
- f. SRI, Strategic Air Defense Penetration Intelligence Studies, 1984 (S-NF-WN)
- g. FTD-2660F-637-84, TED; APP 9; C3; 1984 (S-NF-WN)
- h. FTD-2660P-127/71-85, Soviet Technical Advances in the Control of Interceptors, 26 Apr 85 (S-NF-WN)
- i. FTD-17011-879-85, New IFF/IBS, 1985 (S-NF-WN)
- j. DST-2610R-575-87-SAO, An Upgraded Soviet Air Defense Semiautomatic Air Surveillance and Weapon Support System, 30 Oct 87 (TS-NF-WN)
- k. DST-2610S-044-85-SAO, Soviet Air Defense C³ Study, 4 Oct 85 (TS-SI-TK-NF-WN)
- l. DST-2610S-040-88-SAO, (Draft) Air Defense Data Systems, Date TBD (TS-SI-TK-NF-WN)
- m. FTD Intelligence Data Input Package (IDIP), (Draft) An Upgraded Soviet Air Defense Semiautomatic Air Surveillance and Weapons Support System, Date TBD (S-NF-WN)
- n. FTD-2660P-127/87-86, Air Defense Reaction Analysis Target Detection to Interceptor Assignments, 1 Sep 86 (S-NF-WN)
- o. Other applicable threat intelligence/technical documentation required for this effort.

DEPARTMENT OF DEFENSE CONTRACT SECURITY CLASSIFICATION SPECIFICATION		1. THE REQUIREMENTS OF THE DOD INDUSTRIAL SECURITY MANUAL APPLY TO ALL SECURITY ASPECTS OF THIS EFFORT. THE FACILITY CLEARANCE REQUIRED IS: <u>TOP SECRET</u>			
2. THIS SPECIFICATION IS FOR:		3. CONTRACT NUMBER OR OTHER IDENTIFICATION NUMBER (Prime contracts must be shown for all subcontracts)	4. DATE TO BE COMPLETED (Estimated)	5. THIS SPECIFICATION IS: (See "NOTE" below. If item b or c is "X'd", also enter date for item a)	
a. PRIME CONTRACT	b. FIRST TIER SUBCONTRACT NO.	c. IDENTIFICATION NUMBER	d. DUE DATE	a. ORIGINAL (Complete date in all cases)	DATE
b. SUBCONTRACT (Use item 28 for subcontracting beyond second tier)	c. IDENTIFICATION NUMBER	d. DUE DATE	e. FINAL	b. REVISED (Supersedes all previous specs.)	REVISION NO.
c. REQUEST FOR BID, REQUEST FOR PROPOSAL OR REQ FOR QUOTATION	d. DUE DATE	e. FINAL	DATE	DATE	DATE
6. Is this a follow-on contract? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No. If YES, complete the following:					
a. PRECEDING CONTRACT NUMBER		b. DATE COMPLETED		c. Accountability for classified material on preceding contract	
<input type="checkbox"/> Is <input type="checkbox"/> Is not, transferred to this follow-on contract.					
7a. Name, Address & Zip Code of Prime Contractor*		b. FSC Number	c. Name, Address & Zip Code of Cognizant Security Office		
Calspan Corporation P.O. Box 400 Buffalo NY 14225		93225	DIS, Director of Industrial Security 495 Summer Street Boston MA 02210-2192		
8a. Name, Address & Zip Code of First Tier Subcontractor*		b. FSC Number	c. Name, Address & Zip Code of Cognizant Security Office		
N/A		N/A	N/A		
9a. Name, Address & Zip Code of Second Tier Subcontractor, or facility associated with IFB, RFP OR RFQ*		b. FSC Number	c. Name, Address & Zip Code of Cognizant Security Office		
N/A		N/A	N/A		
* When actual performance is at a location other than that specified, identify such other location in Item 15.					
10 a. General identification of the Procurement for which this specification applies				b. DoDAAD Number of Procuring Activity identified in Item 16d.	
REDCAP Simulator Upgrade Program				FQ7615	
c. Are there additional security requirements established in accordance with paragraph 1-114 or 1-115, ISR? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO. If YES, identify the pertinent contractual documents in Item 15.					
d. Are any elements of this contract outside the inspection responsibility of the cognizant security office? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO. If YES, explain in Item 15 and identify specific areas or elements.					
11. ACCESS REQUIREMENTS		YES	NO	ACCESS REQUIREMENTS (Continued)	
a. Access to Classified Information Only at other contractor/ Government activities.			X	j. Access to SENSITIVE COMPARTMENTED INFORMATION	
b. Receipt of classified documents or other material for reference only (no generation).			X	k. Access to other Special Access Program information (Specify in item 15).	
c. Receipt and generation of classified documents or other material.		X		l. Access to U. S. classified information outside the U.S. Panama Canal Zone, Puerto Rico, U.S. Possessions and Trust Territories.	
d. Fabrication/ Modification/ Storage of classified hardware.		X		m. Defense Documentation Center or Defense information Analysis Center Services may be requested.	
e. Graphic arts services only.			X	n. Classified ADP processing will be involved.	
f. Access to IPO information.		X		o. REMARKS:	
g. Access to RESTRICTED DATA.			X		
h. Access to classified COMSEC information.		X			
i. Cryptographic Access Authorization required.			X		
12. Refer all questions pertaining to contract security classification specification to the official named below (NORMALLY, thru ACO (item 16e); EMERGENCY, direct with written record of inquiry and response to ACO) (thru prime contractor for subcontracts).					
a. The classification guidance contained in this specification and attachments referenced herein is complete and adequate.					
b. Typed name, title and signature of program/project manager or other designated official		c. Activity name, address, Zip Code, telephone number and office symbol			
RONALD J. STAUFFER, CAPT, USAF Program Manager, EC Equipment Div Directorate of Electronic Combar		ASD/RWWQ Wright-Patterson AFB OH 45433-6503 (513) 255-3148/AITOVON 785-3148			
NOTE: Original Specification (Item 5a) is authority for contractors to mark classified information. Revised and Final Specifications (Items 5b and c) are authority for contractors to remark the regraded classified information. Such actions by contractors shall be taken in accordance with the provisions of the Industrial Security Manual.					

13 a. Information pertaining to classified contracts or projects, even though such information is considered unclassified, shall not be released for public dissemination except as provided by the Industrial Security Manual (paragraph 5o and Appendix IX).

b. Proposed public releases shall be submitted for approval prior to release Direct Through (Specify): ASD/RWQ, Wright-Patterson AFB OH 45433-6503 to ASD/PA, Wright-Patterson AFB OH 45433-6503.

No public release authorized for Sensitive Compartmented Information (SCI) to the Directorate For Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs) * for review in accordance with paragraph 5o of the Industrial Security Manual.

* In the case of non-DoD User Agencies, see footnote, paragraph 5o, Industrial Security Manual.

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

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

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

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

b. The following classification guide(s) is made a part of this specification and is (1) attached, or (2) transmitted under separate cover. (List guides under Item 15 or in an attachment by title, reference number and date).

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

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

e. Annual review of this DD Form 254 is required. If "X'd" provide date such review is due: 13 SEP 90

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

Ref Block 10c: General Intelligence Material/Foreign Disclosure Applies (See Attached) and TEMPEST requirements apply. See Contract Clause #H-009 of Section H for details.

Ref Block 11c: The contractor will require access to classified source data up to and including TOP SECRET in support of this work effort. Any extracts or use of such data will require the contractor to apply derivative classifications and markings consistent with the source from which the extracts were made.

Ref Block 10c, 11c, 11h, 11n: TEMPEST requirements apply. See Contract Clause #H-009 and of Section H for details.

Ref Block 11d: This contractor is required to provide adequate storage for classified hardware to the level of TOP SECRET which is of such size or quantity that it cannot be safeguarded in an approved storage container.

Ref Block 11f: Contractor personnel must be briefed for NATO prior to access.

Ref Block 11h: Contractor personnel must receive COMSEC briefing prior to access. See Contract Clause #H-002 of Section H for details. See attached for STU-III Secure Telephone Requirements.

Ref Block 11k: Special Access Requirements (SAR) procedures apply. See Contract Clause #H-010 of Section H for details and attached. Special access programs will grant access when the need-to-know is required to accomplish the required testing under this contract (see attached).

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

REQUIRED DISTRIBUTION:

- Prime Contractor (Item 7a)
 - Cognizant Security Office (Item 7c)
- Administrative Contracting Office (Item 16a)
 - Quality Assurance Representative
- Subcontractor (Item 8a)
 - Cognizant Security Office (Item 8c)
- Program/ Project Manager (Item 12b)
 - U.S. Activity Responsible for Overseas Security Administration

ASD/SP
COORDINATION
PC 9-27-85 R/H/S

b. Typed name and title of approving official

WALTER E. ULLMAYER
Contracting Officer

c. Signature

Walter E. Ullmayer

d. Approving official's activity address and Zip Code

ASD/RWKEA
Wright-Patterson AFB OH 45433-6503

ADDITIONAL DISTRIBUTION:

- ASD/SX
- HQ AFSC/INS (2cys)
- FTD/SPI (2cys)

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

DCASMA, Buffalo
1103 Federal Building, 111 Huron Street
Buffalo NY 14202-2392

The use of the STU-III secure telephone is required for all telephonic transmissions of sensitive but unclassified and classified information between the contractor, its classified subcontractors, and government agencies involved in this effort. STU-III terminals should be acquired as plant equipment as defined in DOD 5220.22-S-1, COMSEC Supplement to the Industrial Security Manual. COMSEC accounts and SCI agreements, as applicable, should be established IAW DOD 5220.22-S-1. For this effort, sensitive but unclassified information is anything covered by the Privacy Act of 1974, any company proprietary data, and any information the disclosure of which could reasonably be expected to adversely affect national security or government interests.

SENSITIVE COMPARTMENTED INFORMATION CLAUSES

The following controls will apply to Sensitive Compartmented Information (SCI) provided under the contract:

1. ITEM 10c: USAFINTELS 201-1, DOD TS-5105.21M-3 and DIAMS 50-3 and 50-5 provide the necessary guidance for physical, personnel, information, classification and TEMPEST security measures and is part of the Sensitive Compartmented Information (SCI) security specifications for the contract.
2. ITEM 10d: This contract requires access to Sensitive Compartmented Information (SCI). The Special Security Office, Foreign Technology Division (SSO FTD) has exclusive security responsibility for all SCI released to the contractor or developed under this contract. Defense Investigative Service is relieved of security inspection responsibility for all SCI, but retains responsibility for all non-SCI classified material released or developed under this contract and held within the contractor's SCIF.
3. All SCI will be handled in accordance with special security requirements which will be furnished by the Cognizant Security Authority (CSA) or the supporting Special Security Office, (SSO).
4. SCI will not be released to contractor employees without specific release approval by the originator of the material as outlined in governing directives; based on prior approval and certification of "need-to-know" by the designated contract monitor Capt Ronald Stauffer, ASD/RWQ, AUTOVON 735-3148.
5. Names of contractor personnel requiring access to SCI will be submitted to the contract monitor for approval. Upon receipt of written approval from the contract monitor, ASD/FTD/SP will provide the company security officer with the necessary data to submit request(s) for special investigation in accordance with DOD 5220.22M, Industrial Security Manual for Safeguarding Classified Information to ASD/FTD/SP, Wright-Patterson AFB OH 45433-6503.
6. Inquiries pertaining to classification guidance should be referred to the contract monitor listed in "4" above.
6. SCI furnished in support of the contract remains the property of the DOD Department, agency or command that releases it. Upon completion of the contract, SCI furnished will be returned to the direct custody of the SSO-FTD.
8. SCI Facility (SCIF) meeting the security requirements for storage of SCI has been established and will be maintained by the contractor. SCI will be stored and maintained only in such properly accredited facilities at the contractor location.
9. COMPUTER SECURITY: The processing of SCI on computer equipment must be in compliance with DIAM 50-4. Authority to process SCI on computer equipment will be granted by the office having responsibility for the SCI facility. DIAM 50-5, Vol. II, contains policy and procedures on security of compartmented computer operations. For assistance, contact the FTD Information Security Office (FTD/SPI), Wright-Patterson AFB OH 45433-6503.
10. This contract requires use of the Defense Courier system.

GENERAL INTELLIGENCE MATERIAL/FOREIGN DISCLOSURE

Reference Block 10c:

1. Special requirements for general and foreign intelligence material. In addition to the requirements and controls for classified material, the Director, Central Intelligence sets up additional requirements and controls for intelligence in the possession of contractors. The contractor must:

a. Maintain accountability for all intelligence released in his or her custody.

b. Not reproduce any intelligence without the written permission of the releasing agency. If permission is granted, each copy is controlled in the same manner as the original.

c. Not destroy any intelligence without advance approval of the releasing agency.

d. Restrict access to only those individuals who possess the required security clearances and who are actually providing services under the contract. Further dissemination to other contractors, subcontractors, other government agencies, and private individuals or organizations is prohibited unless authorized in writing by the releasing agency.

e. Not release any intelligence material to foreign nationals or immigrant aliens whether or not they are also consultants, U.S. contractors, or employees of the contractor, and regardless of the level of their security clearance except with advance written permission from the originator.

f. Ensure that each employee having access to any intelligence material is fully aware of the special requirements for this material and maintains records in a manner that permits the contractor to furnish on demand, the names of individuals who have had access to the material in their custody.

2. Returning intelligence to the Air Force. Upon completion or termination of the classified contract, or sooner, when the purpose of the release has been served, the contracting officer must ensure that the contractor returns all intelligence (furnished or generated), unless retention or destruction is authorized in writing by the originator of the intelligence or Senior Intelligence Officer (SIO) of the releasing command.

3. RELEASE OF CLASSIFIED AND UNCLASSIFIED INFORMATION TO FOREIGN GOVERNMENTS AND THEIR REPRESENTATIVES: Any military activity or defense contractor receiving a request from a foreign government, or a representative thereof, for classified and/or unclassified information about this program must forward the request to ASD/XOP. This does not apply to exchanges of information on approved foreign military sales programs.

USE OF SPECIAL INTELLIGENCE MARKINGS

1. Authorized control Markings of Intelligence Information

a. "Warning Notice - Intelligence Sources and Methods Involved (VNINTEL)"

(1) This marking is used, with a security classification, to identify information whose sensitivity requires constraints on its further dissemination and use. This marking may be used only on intelligence which identifies or would reasonably permit identification of an intelligence source or method which is susceptible to countermeasures that could nullify or reduce its effectiveness.

(2) To avoid confusion as the extent of dissemination and use restrictions governing the information involved, the marking may not be used in conjunction with special access of SCI controls. This marking may be abbreviated as "VNINTEL" or as "VN".

b. "Dissemination and Extraction of Information Controlled by Originator (ORCON)."

This marking is used, with a security classification, to enable a continuing knowledge and supervision by the originator of the use made of the information involved. This marking may be used only on intelligence which clearly identifies or would reasonably permit ready identification of countermeasures that would nullify or measurably reduce its effectiveness. This marking may not be used when an item of information will reasonably be protected by use of other markings specified herein, or by the application of the "need-to-know" principle and safeguarding procedures of the security classification system.

c. "Not Releasable to Foreign Nationals (NOFORN)"

This marking must be used with a security classification to identify intelligence that may not be released in any form to foreign governments, foreign nationals, or non-U.S. citizens without permission of the U.S. Government originator, and then only when released in compliance with the National Disclosure Policy.

d. "Authorized for Release to (Name of country(ies)/International Organization).

The above is abbreviated "REL _____." This marking must be used when it is necessary to identify classified intelligence material that the U.S. Government originator has predetermined to be releasable or has been released through established foreign disclosure channels to the indicated country(ies) or organization.

Procedures Governing use of Control Markings:

a. Any recipient desiring to use intelligence in a manner contrary to the restrictions established by the control markings set forth above shall obtain the advance permission of the originating agency. Such permission applies only to the specific purposes agreed to by the originator and does not automatically apply to all recipients' requests in these regards, with particular attention to reviewing and editing if necessary, sanitized or paraphrased versions to derive a text suitable for release subject to a lesser or no control markings.

b. The control markings authorized above shall be shown on the title page, front cover, and other applicable pages of documents, incorporated in the text of electrical communications, shown on graphics, and associated (in full or abbreviated form) with data stored or processed in automatic data processing systems. The control markings also shall be indicated by parenthetical use of the marking abbreviations at the beginning and end of the appropriate portions. If the control markings apply to several or all portions, the document may be marked with a statement to this effect rather than marking each portion individually.

c. The control markings in paragraph one shall be individually assigned at the time of preparation of intelligence products and used in conjunction with security classifications and other markings specified by EO 12356 and its implementing ISOO Directive. The markings shall be carried forward to any new format in which the same information is incorporated including oral and visual presentations.

SPECIAL ACCESS REQUIREMENTS/PROCEDURES

1. The contractor will identify the special access security manager responsible for managing the special access program. The appointing letter will be given to the special access security manager, a copy sent to the Air Force program/project manager, and a copy kept on file at the contractor's facility.

2. BRIEFING:

a. The Air Force program/project manager will brief the contractor special access security manager. The contractor's special access security manager will complete the attached briefing certificate. The Air Force program/project manager will maintain the certificate and furnish a copy to the contractor's special access security manager. The briefing and debriefing requirements are established on the attached briefing certificate.

b. The contractor special access security manager will in turn brief the contractor employees given special access and have them complete the briefing certificate. The same access security manager will maintain an access list and furnish the Air Force program/project manager a copy with shows access levels.

c. The contractor special access security manager will conduct an annual review to determine the need for persons to have continued access.

3. PROTECTION OF SPECIAL ACCESS INFORMATION:

a. Whenever possible, special access information will be broken out of lengthy documents and handled separately to preclude unnecessary impediment to the flow of other material.

b. The front of first page and back cover of documents containing special access program information will be marked "SPECIAL ACCESS REQUIRED (PROGRAM TITLE)". The SAR page/paragraphs must be marked accordingly.

c. For electronically transmitted messages, the above procedures will be followed. Also, the message will include the notice "LIMITED DISTRIBUTION", "LINDIS".

d. MAILING:

(1) Inside envelope/wrapper. Inside envelope/wrapper will be stamped with the appropriate classification on the top and bottom of both sides. The inside envelope/wrapper will also be marked on both sides.

PO/

"SPECIAL ACCESS REQUIRED - (PROGRAM TITLE)". Press first the office and then to the attention of the individual cleared for the special access program. Add the caveat "To be Opened by Addressee Only".

(2): Outside envelope/wrapper. The outside envelope/wrapper will be marked in accordance with standard procedures. Neither the marking "SPECIAL ACCESS REQUIRED - (PROGRAM TITLE)", nor the name of the cleared individual will be marked on the outside envelope/wrapper.

4. The contractor special access security manager will establish written procedures for mail and telecommunication center personnel on the proper handling, opening, storing, and distributing special access program information. A copy of this procedure will be furnished to and approved by the Air Force program/project manager. This procedure will be reviewed annually by the contractor special access security manager.

5. Designated Government Contract Monitor is Walcer E. Ullmaver.
Symbol ASD/RWKEA, Phone 513-255-6259.

I CERTIFY THAT THE ABOVE-NAMED INDIVIDUAL MEETS THE REQUIREMENT FOR ACCESS TO CLASSIFIED DEFENSE INFORMATION OR TO RESTRICTED AREAS AS INDICATED BELOW.

SPECIAL ACCESS TO PROJECT AUTHORIZED: (Insert Project Name)

BRIEFING ACKNOWLEDGEMENT

1. I ACKNOWLEDGE I HAVE BEEN BRIEFED CONCERNING THE PROJECT INDICATED ABOVE. HAVING RECEIVED HIGHLY CLASSIFIED INFORMATION RELATING TO THE UNITED STATES GOVERNMENT, I AM AWARE THE UNAUTHORIZED DISCLOSURE COULD SERIOUSLY DAMAGE THE NATIONAL SECURITY AND THE TRANSMISSION OR REVELATION OF SUCH INFORMATION TO UNAUTHORIZED PERSONS COULD SUBJECT ME TO PROSECUTION UNDER THE ESPIONAGE LAWS AND OTHER FEDERAL CRIMINAL STATUTES OR APPLICABLE LAWS.

2. I DO SOLEMNLY SWEAR OR AFFIRM THAT I WILL NEVER DIVULGE, PUBLISH, OR REVEAL BY WORK, CONDUCT, OR ANY OTHER MEANS SUCH INFORMATION OR KNOWLEDGE EXCEPT WHEN NECESSARY TO DO SO IN THE PERFORMANCE OF MY OFFICIAL DUTIES IN CONNECTION WITH THE SPECIAL PROJECT AND IN ACCORDANCE WITH THE LAWS OF THE UNITED STATES, UNLESS SPECIFICALLY AUTHORIZED IN WRITING IN EACH AND EVERY CASE BY A DULY AUTHORIZED REPRESENTATIVE OF THE UNITED STATES GOVERNMENT. I TAKE THIS OBLIGATION FREELY, WITHOUT ANY MENTAL RESERVATION OR PURPOSE OF EVASION AND IN ABSENCE OF DURESS.

3. I ACKNOWLEDGE THAT INFORMATION I RECEIVE IS GIVEN ONLY TO PERSONS SPECIALLY APPROVED FOR THE IDENTIFIED PROGRAM AND MAY NOT BE FURTHER DIVULGED WITHOUT SPECIFIC PRIOR WRITTEN APPROVAL FROM PROGRAM HEADQUARTERS. ALL ACCESS IS RESTRICTED TO 'MUST KNOW' BASED UPON ONE'S PRESENT POSITION OF FUNCTIONAL USE.

4. I UNDERSTAND THAT IN THE EVENT I AM REASSIGNED FROM MY PRESENT POSITION, I WILL NOTIFY THE OFFICE GRANTING ACCESS TO THE PROJECT INDICATED FOR DEBRIEFING OR ACTION DEEMED NECESSARY AT THAT TIME.

SIGNATURE OF BRIEFER SIGNATURE OF INDIVIDUAL BRIEFED

Typed Name and Title of Briefer DATE:

DEBRIEFING AGREEMENT

1. I HEREBY REAFFIRM MY KNOWLEDGE OF _____ THE TEXT
(Date)
OF WHICH APPEARS ON THE ATTACHMENT TO THIS FORM.

2. I CERTIFY I HAVE SURRENDERED AND NO LONGER HAVE IN MY
POSSESSION OR CUSTODY ANY CLASSIFIED INFORMATION OR MATERIAL
ACQUIRED AS A RESULT OF THIS ASSOCIATION.

3. I FURTHER ACKNOWLEDGE AND AGREE I HAVE A CONTINUING
INDIVIDUAL RESPONSIBILITY TO THE UNITED STATES GOVERNMENT FOR THE
PROTECTION OF SUCH INFORMATION AND TERMINATION OF ACCESS TO
INFORMATION CONCERNING THIS PROJECT DOES NOT RELIEVE ME OF MY
OBLIGATIONS UNDER THIS OATH OR ANY OTHER PREVIOUSLY EXECUTED
AGREEMENTS OR THOSE IMPOSED BY LAW.

4. I TAKE THIS OBLIGATION FREELY, WITHOUT ANY MENTAL RESERVATION
OR PURPOSE OF EVASION AND IN ABSENCE OF DURESS.

SIGNATURE OF DEBRIEFER

SIGNATURE OF ACKNOWLEDGER

Typed Name and Title of Debriefer

Date:

SYSTEM REQUIREMENTS DOCUMENT (SRD): SUAWACS EM/C3
25 AUG 88

1. SCOPE

1.1 This document establishes the requirements of the SUAWACS Battle Management/Command, Control and Communications (BM/C3) simulation at the RED Capabilities (REDCAP) simulator.

2. APPLICABLE DOCUMENTS

2.1 FTD-1732 I-709-84, Mainstay C3 Intelligence Data Input Package (IDIP), May 1984 (S/NF/WN/FGI).

2.2 FTD-1370 I-872-85-SAO, Mainstay C3 IDIP, Supplement 1, February 1985 (TS/SI/TK).

3. REQUIREMENTS

3.1 Item Definition

3.1.1 The SUAWACS EM/C3 simulation shall simulate the links in Appendix I, Section A, at radio frequency (RF). It shall also be capable of simulating any or all of the links in Appendix I, Sections A and B, in software. The SUAWACS EM/C3 simulation shall also be capable of future expansion to simulate the links in Appendix I, Section B, at RF.

3.1.2 The SUAWACS BM/C3 simulation shall include command and control functions integrated into SUAWACS display consoles including two additional consoles.

3.1.3 The BM/C3 simulation shall permit SUAWACS control of the quantity of interceptors in Appendix I, Section C, with an optimal number of no less than four nor more than ten being manned.

3.1.4 The simulator shall include Built-in Test Equipment (BITE).

3.1.5 The simulation shall be integrated with REDCAP, including the SUAWACS simulator located at the REDCAP facility.

3.2 Characteristics

3.2.1 The links simulated shall be in accordance with relevant portions of FTD-1732 I-709-84 and FTD-1370 I-872-85-SAO except as modified by this document.

3.2.1.1 When a high or reasonable confidence is associated with a threat postulation (i.e. IDIP levels 1, 2 and 3), the simulation may deviate from the postulation only if the contractor provides strong, detailed rationale and obtains government approval.

3.2.1.2 When little confidence is associated with a threat postulation (i.e. IDIP level 4), the simulation may deviate from the postulation upon notification of the Air Force by the contractor.

3.2.2 Built-in Test (BIT)/Built-in Test Equipment (BITE)

3.2.2.1 BIT shall be run at convenient times such as between runs and/or during calibration. It need not be continuous.

3.2.2.2 BITE shall be capable of identifying the existence of a fault to the degree necessary to satisfy the requirements of paragraph 3.3 of this document.

3.2.2.3 BITE shall correctly isolate and identify the unique module in which a fault exists to the degree necessary to satisfy the requirements of paragraph 3.3 of this document.

3.2.3 Flexibility

3.2.3.1 The contractor shall design the simulator so as to make it tolerant to changes in the threat estimate.

3.2.3.2 The contractor shall design the simulated links so that they can represent potential threats which have characteristics similar, but not identical, to those required in paragraphs 3.1.1 and 3.2.1 of this document.

3.2.3.3 The contractor shall design-in a variety of Electronic Counter-Countermeasures (ECCM) for the simulated links, including some that are not currently postulated to be in the threat. The design and integration of these ECCMs shall be thorough so that the configuration variations involving them reflect sound engineering practice.

3.3 Availability

3.3.1 The simulator shall be available an average of twenty-five hours per forty hour test week. To accomplish this, the contractor may use actions such as leaving power on overnight and running second or third shifts.

3.3.2 As a design objective, the simulator shall be available an average of twenty-five hours per forty hour test week when running single shift and allowing only one extra hour per day for actions such as warm-up.

3.4 Integrity

3.4.1 Operation of the simulator shall be in a REDCAP facility environment.

3.4.2 The objective service life of the simulator is twenty years or 40,000 operating hours, whichever comes first.

4. QUALITY ASSURANCE PROVISIONS

4.1 General

4.1.1 Responsibilities for inspections, demonstrations, analyses and tests.

4.1.1.1 The contractor shall be responsible for all inspections, demonstrations, analyses and tests. However, the government reserves the right to witness such inspections, demonstrations and tests.

4.1.2 Acceptance Tests

4.1.2.1 The contractor shall verify conformance with paragraphs 3.1.1 and 3.2.1 and its subparagraphs of this document in an acceptance test.

4.1.2.2 The contractor shall demonstrate conformance with paragraphs 3.1.2 through 3.1.5 of this document during an acceptance test.

4.1.3 Analyses

4.1.3.1 The contractor shall verify conformance by analyses with paragraphs 3.2.2, 3.2.3 and 3.3 and their subparagraphs.

SYSTEM REQUIREMENTS DOCUMENT: IADS
25 AUG 88

1. SCOPE

1.1 This establishes the requirements for simulation of the Integrated Air Defense System (IADS) at the RED CAPabilities (REDCAP) simulator. This includes computer architecture upgrades.

2. APPLICABLE DOCUMENTS

2.1 Preliminary System Requirements Review (PSRR) Conference Minutes (U) for the REDCAP Advanced Integrated Air Defense System (IADS) Simulation Requirements Study, No. 098170, 10 March 1988 (S/NF/WN).

2.2 REDCAP Advanced Integrated Air Defense System (IADS) Simulation Requirements Study Final Report (Draft), No. 7567-1, July 1988 (S/NF/WN).

3. REQUIREMENTS

3.1 Item Definition

3.1.1 The IADS simulation at REDCAP shall add V2 ground stations, links and processing to the existing V1 and V1.5 capabilities and include provisions for later additions of V2+ components.

3.1.2 The IADS simulation at REDCAP shall include a facility architecture which supports operation of the IADS fully integrated with the SUAWACS Battle Management/Command, Control and Communications (BM/C3) Simulation and Early Warning/Ground Control Intercept (EW/GCI) radar simulators at REDCAP.

3.1.3 The simulator shall include Built-in Test Equipment (BITE).

3.1.4 The simulation shall be integrated with REDCAP.

3.2 Characteristics

3.2.1 The IADS simulation V2 and V2+ nets shall conform to the relevant portions of the threat descriptions described in paragraphs 2.1 and 2.2 of this document except as modified by this document.

3.2.1.1 When a high or reasonable confidence is associated with a threat postulation, the advanced IADS simulation may deviate from the postulation only if the contractor provides strong, detailed rationale and obtains government approval.

3.2.1.2 When little confidence is associated with a threat postulation (i.e. there is no intelligence basis for the estimate), the advanced IADS simulation may deviate from the postulation upon notification of the Air Force by the contractor.

3.2.2 Built-in Test (BIT)/Built-in Test Equipment (BITE)

3.2.2.1 BIT shall be run at convenient times such as between runs and/or during calibration. It need not be continuous.

3.2.2.2 EITE shall be capable of identifying the existence of a fault to the degree necessary to satisfy the requirements of paragraph 3.3 and subparagraphs of this document.

3.2.2.3 EITE shall correctly isolate and identify the unique module in which a fault exists to the degree necessary to satisfy the requirements of paragraph 3.3 and subparagraphs of this document.

3.2.3 Features

3.2.3.1 The simulated nets shall provide (a) typical, (b) specific, and (c) variant threat configurations.

3.2.3.2 The simulated nets shall operate with (a) few, (b) several, and (c) many hardware elements of the REDCAP.

3.2.3.3 It shall be possible to reposition manned REDCAP elements during a run so as to emphasize the effects of human decision making.

3.3 Availability

3.3.1 The simulator shall be available an average of twenty five hours per forty hour test week. To accomplish this, the contractor may use actions such as leaving power on overnight and running double shifts.

3.3.2 As a design goal, the simulator shall be available an average of twenty-five hours per forty hour test week when running single shift and allowing only one extra hour per day for actions such as warm-up.

3.4 Integrity

3.4.1 Operation of the simulator shall be in a REDCAP facility environment.

3.4.2 The objective service life of the simulation is 20 years or 20,000 operating hours, whichever comes first.

4. QUALITY ASSURANCE PROVISIONS

4.1 General

4.1.1 Responsibility for Inspections, demonstrations, analyses and tests.

4.1.1.1 The contractor shall be responsible for all inspections, demonstrations, analyses and tests. However, the government reserves the right to witness such inspections, demonstrations and tests.

4 1.2 Acceptance Tests

4 1.2.1 The contractor shall verify conformance with paragraphs 3.1.1 and 3.2.1 and its subparagraphs of this document in an acceptance test.

4 1.2.2 The contractor shall demonstrate conformance with paragraphs 3.1.2, 3.1.3, 3.1.4 and 3.2.3 and its subparagraphs of this document during an acceptance test.

4.1.3 Analyses

4 1.3.1 The contractor shall verify conformance by analyses with paragraphs 3.2.2 and 3.3 and their subparagraphs.

SYSTEM REQUIREMENTS DOCUMENT: EW/GCI SIMULATOR TYPE A, B OR C
25 AUG 88

1. SCOPE

1.1 This establishes the requirements of a radar simulation at the RED CAPabilities (REDCAP) simulator.

2. APPLICABLE DOCUMENTS

2.1 See Appendix I

3. REQUIREMENTS

3.1 Item Definition

3.1.1 The simulator shall simulate the threats in Appendix I at actual radio frequency (RF) along with the effects of clutter.

3.1.1.1 The simulator shall have two radar-to-jammer and two jammer-to-radar paths.

3.1.1.2 The simulator shall be designed to be expandable to provide four radar-to-jammer and four jammer-to-radar paths.

3.1.1.3 The simulator shall include necessary target echo path(s).

3.1.2 The simulator shall include Built-in Test Equipment (SITE).

3.1.3 The simulator shall be integrated with REDCAP.

3.2 Characteristics

3.2.1 The threat radars shall be simulated in accordance with the parameters in the documents in Appendix I except as modified by this document.

3.2.1.1 When a high or reasonable confidence is associated with a threat postulation (e.g. Intelligence Data Input Package confidence factors 1, 2 and 3), the simulation may deviate from the postulation only if the contractor provides strong, detailed rationale and obtains government approval.

3.2.1.2 When little confidence is associated with a threat postulation (e.g. Intelligence Data Input Package confidence factor 4), the simulation may deviate from the postulation upon notification of the Air Force by the contractor.

3.2.2 Built-in Test (BIT)/Built-in Test Equipment (SITE).

3.2.2.1 BIT shall be run at convenient times such as between runs and/or during calibration. It need not be continuous.

3.2.2.2 BITE shall be capable of identifying the existence of a fault to the degree necessary to satisfy the requirements of paragraph 3.3 and subparagraphs of this document.

3.2.2.3 BITE shall correctly isolate and identify the unique module in which a fault exists to the degree necessary to satisfy the requirements of paragraph 3.3 and subparagraphs of this document.

3.2.3 Operational Modes

3.2.3.1 The simulator shall be capable of operating with REDCAP in an integrated mode.

3.2.3.2 The simulator shall be capable of operating in a replay mode. In this mode, the simulator shall be capable of providing a fully dynamic target simulation when driven by data from a tape, disk or other recording taken during runs when the simulator was previously operated in the integrated mode.

3.2.3.3 The simulator shall be capable of operating in a stand alone mode in which engineering data is collected against stationary, but adjustable, targets.

3.2.4 Flexibility

3.2.4.1 The contractor shall design the simulator so as to make it tolerant to changes in the threat estimate.

3.2.4.2 The contractor shall design the simulator so that it can simulate threats and potential threats which have characteristics similar, but not identical, to those required by paragraph 3.2.1 (and, therefore, Appendix I) of this document.

3.2.4.3 The contractor shall design-in a variety of Electronic Counter-Countermeasures (ECCM) to the simulator, including some that are not currently postulated to be in the threat. The design and integration of these ECCMs shall be thorough so that the configuration variations involving them reflect sound engineering practice.

3.2.5 Other Characteristics

3.2.5.1 The maximum signal level on each radar to jammer path shall be at least 10 dbm.

3.2.5.2 The simulator shall be capable of operating with and without externally connected jammer time sharing. Unless limited by the jammer, the simulator shall be capable of simulating 100 targets, each with a jammer. When a path is dedicated, it shall permit the evaluation of sidelobe jamming. The simulator shall also be capable of operating with some paths time shared and others dedicated.

3.2.5.3 The simulator shall have realistic detection characteristics with and without clutter.

3.3 Availability

3.3.1 The simulator shall be available an average of twenty-five hours per forty hour test week. To accomplish this, the contractor may use actions such as leaving power on overnight and running double shift.

3.3.2 As a design goal, the simulator shall be available an average of twenty-hours per forty hour test week when running single shift and allowing only one extra hour per day for actions such as warm-up.

3.4 Integrity

3.4.1 Operation of the simulator shall be in a REDCAP facility environment.

3.4.2 The desired service life of the simulator is twenty years or 40,000 operating hours, whichever comes first.

4. QUALITY ASSURANCE PROVISIONS

4.1 General

4.1.1 Responsibility for inspections, demonstrations, analyses and tests.

4.1.1.1 The contractor shall be responsible for all inspections, demonstrations, analyses and tests. However, the government reserves the right to witness such inspections, demonstrations and tests.

4.1.2 Acceptance Tests

4.1.2.1 The contractor shall verify conformance with paragraphs 3.1.1 and 3.2.1, their subparagraphs, 3.2.5.1 and 3.2.5.3 of this document in an acceptance test.

4.1.2.2 The contractor shall demonstrate conformance with paragraphs 3.1.2, 3.1.3, 3.2.3 and its subparagraphs and 3.2.5.2 in an acceptance test.

4.1.3 Analyses

4.1.3.1 The contractor shall verify conformance with paragraphs 3.2.2, 3.2.4, 3.3 and their subparagraphs by analyses.



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mod PZ 0001
4/18/89

GOVERNMENT FURNISHED EQUIPMENT (GFE)
 FOR RED CAPABILITIES (REDCAP) SIMULATOR
 UPGRADE PROGRAM - PHASE 1
 CONTRACT F33657-88-C-2093

30 Aug 88

I. Facility Master Controller (FMC) Hardware w/ Related Vendor Software

Digital Equipment Corporation (DEC)-Based System

<u>ITEM</u>	<u>QTY</u>
DEC 8820 System with 64 MB Memory	1
TU81-PLUS 145 MB Tape Drive	1
RA82 disk Drive (1.244 GB)	2
VT-340 Color Graphics Terminals	5
VT-320 Video Text Terminals	20
Laser Printer	1
1200 LPM Line Printer	1
VAXELN Operating System	1
VAXELN ADA Compiler	1
VAX Language Sensitive Editor	1
VAX FORTRAN Compiler	1
VAX DEC/Code Management System	1
VAX DEC/Module Management System	1

II. Electronic Design Aids (EDA)/Computer-Aided Software Engineering (CASE) Tools

Valid Logic System Incorporated Equipment

<u>ITEM</u>	<u>QTY</u>
VLD 3200M Logic Designer	3
VLD 3200M Validation Designer	2
HW3500S System Server. Includes:	1
- VAX Server 3500	
- CMOS CPU	
- 16 MB Memory	
- 280 MB Disk (RA70)	
- 296 MB 1/2" Cartridge Tape (TK70)	
- DELQA Ethernet Controller	
- VMS Operating System	
- DECNET	
- VAX Cluster License	
HW 375 150 MB Disk Drive	5
Access for 6 DEC Workstations	6
7 Family Libraries for all Workstations	1

TEKTRONIX CASE Software

<u>ITEM</u>	<u>QTY</u>
Analyst/RT Designer	5
Designer	5

Table Editor
Auditor
CMS Interface

5
1
1

Deleted
mod P20001
4/18/89

Other

Hewlett Packard HP7570A Plotter

1

There will also be a need to GFE requirements traceability tools (PSL/PSA or DCDS) for the software verification and validation effort. The final selection for this hardware/software will be determined after start of the contract.

SPONSOR OWNED PROPERTY

COOPERATION
5 CONTRACT

CONTRACT TAG NUMBER	CONTRACT NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE	LOCATION	DISPOSAL DOCUMENT
						INVT		

1615-82-C-1837 (520-566)	04627	GCI DATA LINK FOR REDCAP SIMULATOR (GROUND CONTROL INSTALLATION)		322775	E 50610641	07/77	B1 64 BSREDCAP	
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1615-76-C-1212 (WA Y52)
FORM 223 12-6-77 CALSPAN FAB
THIS EQUIPMENT CONTAINS
(3) IF SIGNAL CONDITIONER UNITS
SERIAL 1-2-3 MFG SYSTEMS RES LAB
CLASSIFIED CONFIDENTIAL
ESL 81900

1615-82-C-1937 (520-566)	04633	VALAR DATA REDUCTION SYSTEM		17025	E 50611071	12/77	B2 62 05 R3656	
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0602-76-C-0422 (WA 766)
CALSPAN FABRICATED RACK MOUNT
FORM 223 1-24-78
ESL 82180

1615-82-C-1837 (520-566)	04760	VARIAN COMPUTER SYSTEM M-620-F100		124400	D 73335	08/78	B2 64 REDCAP	
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13615-76-C-1212
CONSISTING OF:
(1) COMPUTER
(1) TELETYPE
ESL 83320 6 83370

13615-82-C-1837 (520-566)	05019	LOW-NOISE TRAVELING-WAVE AMPLIFIER WITH INTEGRAL POWER SUPPLY		6645	PO 54552	02/82	B1 64 REDCAP	
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13615-80-C-1203 (501-550)
WATKINS-JOHNSON COMPANY MODEL
NO. WJ-269 ESL #108100

13615-82-C-1837 (520-566)	05128	IDIGRAF TERMINAL ASSY MODEL E-03-0805-02 MFG INFORMATION DISPLAYS		25000	D 76891	06/82	A2 64 MSE LRC	
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13615-80-C-1203 (501)
COST: \$5000/EA
S/N 5801-10 ESL 109320
S/N 5801-11 ESL 109321
S/N 5801-12 ESL 109322
S/N 5801-13 ESL 109323
S/N 5801-14 ESL 109324
(THE ITEMS WILL BE CANABILIZED AND USED AS SPARE PARTS)

IT A	27205	A1	A2	27205	TOT B	4117507	B1	329420	B2	3788087	TOTAL	414471
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IT D	TOTAL ITEMS	01	02	TOT M	M1	M2	TOT F	F1	F2	TOT E
				36						

CONTRACT NUMBER	CONTRACT TAG NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE ACQ	DATE INV	LOCATION	DISPOSAL DOCUMENT
3615-82-C-1837 (520-566)	3615-70-C-1373-5	03690	MONITOR 16" SEICHELL CARLSON MODEL 8M412 CS PO 1245 1-3-73 LISG #49221	594665	250	SOG10641	01/73	01/86	A2 64 USRLED CAP	
3615-82-C-1837 (520-566)	3615-70-C-1373-4	03691	CAMERA VIDEO SONY MODEL AVC-J2100X CS PO 1245 1-3-73 LISG #49222 + 49225 + 49227 + 49228	24603	700	SOG10641	01/73	01/86	A2 64 USRLED CAP	
3615-82-C-1837 (520-566)	3615-70-C-1373MP	03692	TRIPUD DAVIS G SANFORD MODEL CIV4 CS PO 1245 1-3-73 LISG #49224	102	102	SOG10641	01/73	01/86	A2 64 USRLED CAP	
3615-82-C-1837 (520-566)	3615-70-C-1373MP ASSIGNE	03693	LENS TV ZOOM 75MM SONY 1:1.8 F12.5 CS PO 1245 1-3-73 LISG #49223	125993	100	SOG10641	01/73	01/86	A2 64 USRLED CAP	
3615-82-C-1837 (520-566)	3615-70-C-1373MP ASSIGNE	03694	LENS TV SONY 14MM 1:1.8 CS PO 1245 1-3-73 LISG #49226	501919	50	SOG10641	01/73	01/86	A2 64 USRLED CAP	
3615-82-C-1837 (520-566)	3615-71-C-1592	03752	TARGET CONTROL UNIT USED TO CONTROL MICROWAVE SWITCH (CAL-FAB.) FORM 223 10-71 ESL #35760	2219	2219	E SUG11071	05/74	08/85	32 64 35 R3050	NONE
3615-82-C-1837 (520-566)	3615-71-C-1592-01	03754	ANTENNA DIAMOND ANIENNA G MICRO-WAVE COMP TYPE 88-08 FABRICATED TO CALSPAN SPECS. CAL PO 36932 8-10-71 ESL #52530	975	975	SOG11071	05/74	08/85	32 64 30 R164	NONE
3615-82-C-1837 (520-566)	3615-73-C-1078-2	03795	AMPLIFIER MULTICHANNEL LF AND POWER DIVIDER 5-9 JB PO CS 8328 4-15-71 ESL J5790 PART OF ADVANCED TERRAIN FOLLOWING AIRBORNE RADAR SYSTEM	2228	20043	SOG11071	04/74	10/85	32 62 826FRONI	
3615-82-C-1837 (520-566)	3611071	03792	MILITARY INVERTER AMP ELECTRO-SYSTEMS DIV 4-4CE PO CS 3004 5-2-74 ESL J3570 PART OF ADVANCED TERRAIN FOLLOWING AIRBORNE RADAR SYSTEM	061109	1513	SOG10998	05/74	10/85	32 58 320 BACK	0611071
3615-82-C-1837 (520-566)	3615-73-C-1078	04792	EXPERIMENTAL AIRBORNE RADAR SYSTEM CALSPAN FABRICATED USED FOR ADLAT FLIGHT TEST PROGRAM FORM 223 7-1-75 ESL 24790	393560	393560	E SUG11071	06/75	10/85	02 62 02 J26	

CORPORATION
CONTRACT

SPONSOR OWNED PROPERTY

TRACT NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE ACQ Y E	LOCATION	DISPOSAL DOCUMENT
15-82-C-1837 (520-566) 69-69-C-0311	02337	MASTER TIMER CONSISTING OF PHF GENERATOR - MASTER DELAY - EIGHT TRIMMING DELAYS - AND BOXCAR GATING CIRCUITS CAL FABRICATED TO PROVIDE TIMING FOR THE RADAR UNDER TEST ESL #50720		6470	E SOG11071	02/71 02 64 12/85	RADARVAN	NONE
1615-82-C-1837 (520-566) 269-69-C-0311	02338	BOXCAR CHASSIS CONSISTING OF EIGHT IDENTICAL PRECISION SAMPLE AND HOLD CIRCUITS -- CAL FABRICATED TO STORE SIGNALS UNDER INVESTIGATION FOR RECORDING WITH RADAR UNDER TEST ESL #50660		7445	E SOG11071	02/71 02 64 02/86	RADARVAN	NONE
1615-82-C-1837 (520-566) 269-69-C-0311	02339	DETECTION CHASSIS 60MHZ CONSISTS OF (4) PHASE DETECTORS (3) AMPLITUDE DETECTORS WITH ASSOC POWER SPLITTERS AND QUADATURE HYBRIDS CAL FABRICATED FORM 223 2-27-70 TO PROVIDE A PRECISION DETECTOR GROUPING TO FURNISH SPECIFIC SIGNAL FOR PROCESSING AND REDUCTION FOR THE RADAR UNDER TEST ESL #50670		10910	E SOG11071	02/71 02 64 12/85	RADARVAN	NONE
1615-82-C-1837 (520-566) J-615-70-C-1373	02422	PLOTTING BOARD 6FTX5FT WITH VERTICAL HORIZONTAL AND CIRCULAR GRIDS-- MOUNTED ON ALUMINUM SUPPORT WITH FLOUHESCENT EDGE LIGHTING--CAPABLE OF SIMULATING MANUAL PLOTTING OF RADAR REPORTS ESL #52200		4370	E SOG10641	06/70 02 64 09/85	BSREDCAP	NONE
1615-82-C-1837 (520-566) J615-70-C-1600	0 180	REDCAP ELECTROMA NETIC ENVIRONMENT SIMULATOR AND MOD IFICATIONS CALSPAN FABRICATED ESL 51940 (CURRENT COST BASED ON MEMO DATED 31 AUG 1976 IN 112)		3053125	E SOG10641	01/81 02 64 07/85	BSREDCAP	
1615-82-C-1837 (520-566) J615-88-C-1641	0 1233	DELAY LINE SYSTEM CONSISTING OF RECIRCULATING DELAY LINE SYSTEM 6.6 MILLISECOND VIDEO DELAY LINE SYSTEM (FA3 TO CAL SPEC. BY ANDERSON LAB., BLOOMFIELD CONN.) TO PROVIDE DELAYED SIGNALS FOR FURTHER PROCESSING CAL PO 42537 7-24-69 ESL #50790		28700	E SOG11071	02/70 02 64 03/85	BAWHSE	
1615-82-C-1837 (520-566) J615-70-C-1373-3	03689	RECORDED MAGNETIC TAPE VIDEO SONY MODEL AV3600 CS PO 1245 1-3-73 LISG #49220	71027	795	SOG10641	01/73 02 64 04/85	BSREDCAP	

1/3.

CONTRACT

CONTRACT TAG NUMBER NUMBER

J615-02-C-1037 (520-566) 02119 LENS WIDE ANGLE SOLICOR 12.5 MM
 J-015-08-C-1041 110 E 50610641 06/69
 F1.4-C-MOUNT FOR USE WITH ST-2
 CAMERA CCM 2110 CAL PD 22502 9-29-
 67 COMPONENT OF CCM 3180
 ESL #42883 10/85

J615-02-C-1037 (520-566) 02161 COMPUTERS, ANGLE OF ARRIVAL, TWO (2)
 J-015-08-C-1041 11.76 50611071 02/69 02 04 RADARVAN
 UNITS. THESE COMPUTERS GENERATE THE
 RATIO OF 2 VIDEO SIGNALS REQUIRED TO
 TO GENERATE THE MONOPULSE ANGLES OF
 ARRIVAL - BETA - & THETA - (ELEVATION
 & AZIMUTH ANGLES) CAL FABRICATED
 ESL #50750 02/80

J615-02-C-1037 (520-566) 02162 DETECTOR SYSTEM CONSISTS OF
 J-015-08-C-1041 24.36 E 50611071 02/69 02 04 RADARVAN
 (4) PHASE DETECTORS 12/85
 (4) AMPLITUDE DETECTORS
 ALL UNITS 60MHZ PROVIDES A SIGNAL
 WHICH IS PROPORTIONAL TO THE
 MAGNITUDE OF SIGNAL 3 AND THE
 COSINE OF THE ELECTRICAL ANGLE
 BETWEEN A & B SIGNALS
 FORM 223 JANUARY 1969 CAL FAB
 ESL #50690

J615-02-C-1037 (520-566) 02196 PHASE SHIFTER, LO & AFC CONTROL
 J-015-08-C-1041 51.48 E 50611071 05/69 02 04 RADARVAN
 CHASSIS - PROVIDES PROPER DRIVE
 CURRENTS FOR PHASE SHIFTER TO PRO-
 VIDE FREQUENCY AGILITY FOR PROGRAM-
 MING THE LOCAL OSCILLATOR FREQUENCY
 & FOR PROVIDING THE AFC FUNCTION.
 REQUIRED FOR CONTROL OF TRANSMITTER
 & RECEIVER FUNCTIONS.
 ESL #50730 12/85

J615-02-C-1037 (520-566) 02197 VIDEO PROCESSOR - SPECIAL PURPOSE
 J-015-08-C-1041 0031 E 50611071 05/69 02 02 85 RJ650
 DESIGNED TO CONDITON THE MONOPULSE
 VIDEO SIGNALS.
 REQUIRED TO PROCESS SIGNALS PRIOR
 TO DISPLAY.
 ESL #50700 12/85

J615-02-C-1037 (520-566) 02294 DISPLAY CONTROL CAL FABRICATED
 J-015-08-C-1041 17800 E 50611071 11/69 02 04 MURADVAN
 TO DRIVE MEMORY-PACK STORAGE
 OSCILLOSCOPE LOCATED IN 06 PARKING
 LOT
 ESL #50710 12/85

J615-02-C-1037 (520-566) 02336 POWER SUPPLY REGULATED LAM DA
 J31057115251-106 231 50610641 03/63 02 04 35REDLAP N
 MODEL C-401-4 125-325 VOLT DC AT
 U-400 MA CAL PD CASH209 ESL 51550
 PART OF REDCAP SIMULATOR FACILITY
 04/85

ALSPAN CORPORATION
 3/31/86 CONTRACT

SPONSOR OWNED PROPERTY

CONTRACT NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE ACQ	DATE P	LOCATION	DISPOSAL DOCUMENT
33615-82-C-1837 (520-566) F19(600)1550-20	00096	CAMERA GUN 2900-NL WITH MAGAZINE LENS WITH B AND H CAMERA SYSTEM - RECORDING - 16 MM PULSE TYPE WITH (3) MAGAZINES MOD 2900-520576-5 BELL AND HOWELL CO CHICAGO ILLINOIS MFG CODE 06650 ESL 50940 PART OF ADVANCED TERRAIN FOLLOWING INSTRUMENTATION	4	2622	SOG11071	02/66	02 62 05	RJ056	
33615-82-C-1837 (520-566) F18(600)-1550MP ASSIGNED	00141	TELELENS 102 MM 4 INCH F# 40LENSAK ESL 50760 PART OF ADVANCED TERRAIN FOLLOWING INSTRUMENTATION		119	SOG11071	02/66	02 62 05	R3056	
33615-82-C-1837 (520-566) SN 91707-100129	00639	INDICATOR F16-U115112-0200 AN-SPA- JA 1P-970/SPA-J AZIMUTH RANGE INDICATOR PP-560A/SP POWER SUPPLY TF-129A/SP TRANSFORMER S/N 714 MOUNT(2)LEVER BOLTS EXCITER DETECTOR UNIT MODEL 22264 S/N 5 GLASS(CONDUCTING) AND OVERLAY (CONDUCTING) HAZELTIME COMP LITTLE NECK NY MFG CODE 80249 J-BOX SPARE PARTS 34-3335 ESL 451500	1408	2644	SOG10641	08/70	02 64 05	REDCAP 10/75	
33615-82-C-1837 (520-566) QDS 3954	00840	INDICATOR RADAR AN-SPA-JA WITH RANGE INDICATOR SN1106 AND POWER SUPPLY SN826 AND POWER TRANSFORMER SN184 MANUFACTURER HAZELTIME ELECTRONICS CORP ESL 51510 PART OF REDCAP SIMULATOR FACILITY		15700	E SOG10641	08/70	02 64 05	REDCAP 08/85	
33615-82-C-1837 (520-566) F33(615)2795-3	01305	TRANSIT-LEVEL BUILDERS PRODUCT NO 770010 KEUFFEL & ESSER CO ESL 50770 PART OF ADVANCED TERRAIN FOLLOWING INSTRUMENTATION	198042	208	SOG11071	03/66	02 64 05	RJ056 12/85	
33615-82-C-1837 (520-566) F33(615)2795	01532	GENERATOR STEP DELAY (CAL FAD) USED ON MORAD RADAR SYSTEM ESL #50780		5970	E SOG11071	01/67	02 62 05	RJ056 12/85	
33615-82-C-1837 (520-566) AMC04-07-C-0005-6	02110	CAMERA VIDICON DIAMOND ELECTRONICS CORP MODEL 51-2 CAL PD 22502 9-29-67 COMPONENT OF CCN J100 L15G #42831 L15G #42381	1204	1895	E SOG10641	06/69	02 64 05	REDCAP 10/85	NONE

CONTRACT NUMBER: 05329 PDP-11/34 COMPUTER AND ASSOCIATED GRAPHICS EQUIPMENT
 SERIAL NUMBER: 107000
 ACQUIRING DATE: 04/82
 LOCATION: 0131/JAL
 DOCUMENT: 0768J2
 DATE: 03/85
 INVENTORY: 1
 INVENTORY: 2
 TOTAL: 197965

CONTRACT TAG NUMBER	CONTROL NUMBER	DESCRIPTION	QTY	UNIT	QTY	UNIT	QTY	UNIT	TOTAL
1057-82-0-0118 (934)	05329	PDP-11/34 COMPUTER AND ASSOCIATED GRAPHICS EQUIPMENT	32	B1	32	M2	32	E1	197965
1057-82-0-0118	A2	ESL 112000	32	B1	32	M2	32	E1	197965

CONTRACT TAG NUMBER	CONTROL NUMBER	DESCRIPTION	QTY	UNIT	QTY	UNIT	QTY	UNIT	TOTAL
1057-82-0-0118	05181	ECM MONITORING SYSTEM WITH HEWLETT PACKARD 98458 DESK TOP COMPUTER	5000	0	5000	0	5000	0	500000
1057-82-0-0118	A2	ESL 109970 AND 109980	5000	0	5000	0	5000	0	500000

U.S.
3/31/75

CONTRACT NUMBER

CONTRACT TAG NUMBER

Cum.
NUMBER

33657-83-C-0373 (K76)
33657-83-C-0373 (K76)

05519 SUWACS SIMULATOR: (1) SLC CABINET
00000 ASSY (2) RADAR CABINET ASSY (3)
JAMMER CABINET ASSY (4) RADAR CABIN-
ET ASSY (5) UNIBUS ASSY IN VAX
COMPUTER CCN 5160 (6) SIGNAL PROCES-
SOR CABINETS (4 SUB UNITS) (7) RAM-
TEK DISPLAY CONTROLLER (8) RAMTEK
MASTER CONSOLE w/COLOR MONITOR &
VIDEO SWITCH ASSY (9) OPERATOR
DISPLAY CONSOLE w/RAMTEK MONITOR

4975904

FORM 223 07/85 B1
07/85

JT A	A1	A2	TOT B	B1	B2	C	H	TOTAL	
			4975904	4975904				4975904	
JT D	D1	D2	TOT M	M1	M2	TOT F	F1	F2	TOT E
	TOTAL ITEMS	1							

CONTRACT NUMBER: 05160
 CONTROL NUMBER: 05160
 INVOICE COST: 237623
 ACQUIRING DATE: 01/83
 LOCATION: 64 REDCAP
 SERIAL NUMBER: 237623
 DOCUMENT: PO 59422
 DATE: 01/83
 ACQ Y E: 01/83
 DATE P P: 01/83
 INV E T: 01/83

05160 VAX-11/780 COMPUTER SYSTEM CONSIST-
 ING OF: CENTRAL PROCESSING UNIT
 (1) FORTRAN IV COMPILER
 (1) 1PM DAND PRINTER 5/M20-M17122
 (1) DECRYPTER III S/N PNM0441
 (1) CRT TERMINALS VTIQ1A S/N TAJ317
 251 TAJ31810: TAJ31742 TAJ31740
 ANQ 37770 ESL 102800
 29600 TOT B 36060 91 237923 82 320801 TOTAL 590729

05235 POWER SENSOR 84018 HEWLETT-PACKARD 2235A02 1403 PO 63904 11/83 91 64 HADARVAN
 50 DPM5 1M4-234 11/85
 ESL 110610

05261 POWER METER MP 836A HEWLETT-PACKARD 3507 PO 63904 11/83 01 64 RM J448
 OPTION 10 20FT CABLE 11/85
 OPTION 22 DATA BUSS
 OPTION 908 RACK MOUNT
 ESL 111280

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

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 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

05270 POWER SENSOR 84044 HEWLETT PACKARD 880 PO 63904 01/84 01 64 RADARVAN
 ESL 111210 02/86
 5789 82 TOTAL 3789

CALSPAN CORPORATION
1/31/86 CONTRACT

SPONSOR OWNED PROPERTY

CONTRACT NUMBER CONTRACT TAG NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE P. O. ACQ Y E DATE P. P. INVE T	LOCATION	U DISPOSAL I DOLUMENT P E
33657-82-C-0403 (460) 33657-78-C-0491	04871	PULSE DOPPLER PROCESSOR (CALSPAN-FAB) GROUP OF RF COMPS INTERCONNECTED TO FORM (3) IDENTICAL SIGNAL PROCESSING CHANNELS ENCLOSED IN A RACK-MOUNTED CHASSIS FORM 223 11-13-79 ESL NO. 106500		83208	E FORM 223	11/79 82 64 12/85	RADARVAN	
33657-82-C-0403 (460) 33657-78-C-0491	04872	SIGNAL SPLITTER UNIT (CALSPAN-FAB) GROUP OF RF COMPS INTERCONNECTED TO FORM (6) SIGNAL PROCESSING CHANNELS ENCLOSED IN RACK-MOUNTED CHASSIS FORM 223 11-13-79 ESL NO. 106510		11379	E FORM 223	11/79 82 64 12/85	RADARVAN	
33657-82-C-0403 (460) 33657-78-C-0491	04873	MTI CANCELLER UNIT (CALSPAN-FAB) SERIES OF PLUG-IN CIRCUIT CARDS CONTAINED IN COMPLETELY ENCLOSED RACK-MOUNTED CHASSIS W/INTERNAL POWER SUPPLIES FORM 223 11-13-79 ESL NO. 106520		71891	E FORM 223	11/79 82 64 02/85	RADARVAN	
33657-82-C-0403 (460) 33657-78-C-0491	04898	PLT SIGNAL PROCESSOR/AZIMUTH ANGLE ERROR RF & IC COMPS CONNECTED TO FORM PAIR OF SIGNAL PROCESSING CHANNELS MOUNTED ON SINGLE RACK-MOUNTED CHASSIS TO PROVIDE ELECTRONIC FUNCTIONS FOR UPGRADED MORAD RADAR SYSTEM (CALSPAN-FAB) FORM 223 DTD. 05-80 ESL 106670		37939	E FORM 223	05/80 82 64 09/85	RADARVAN	
33657-82-C-0403 (460) 33657-78-C-0491	04899	PLT SIGNAL PROCESSOR/RANGE CHANNEL VIDEO RF & IC COMPS CONNECTED TO FORM PAIR OF SIGNAL PROCESSING CHANNELS MOUNTED ON SINGLE RACK-MOUNTED CHASSIS TO PROVIDE ELECTRONIC FUNCTIONS FOR UPGRADED MORAD RADAR SYSTEM (CALSPAN-FAB) FORM 223 DTD. 05-80 ESL 106680		27059	E FORM 223	05/80 82 64 09/85	RADARVAN	
33657-82-C-0403 (460) 33657-78-C-0491	04900	PLT SIGNAL PROCESSOR/ELEVATION ANGLE ERROR RF & IC COMPS CONNECTED TO FORM PAIR OF SIGNAL PROCESSING CHANNELS MOUNTED ON SINGLE RACK-MOUNTED CHASSIS TO PROVIDE ELECTRONIC FUNCTIONS FOR UPGRADED MORAD RADAR SYSTEM (CALSPAN-FAB) FORM 223 DTD. 05-80 ESL 106690		37253	E FORM 223	05/80 82 64 09/85	RADARVAN	

F33657-88-C-2093
 Attachment 6
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FACT NUMBER	FACT TAG NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE ACQ	DATE P	LOCATION	DISPOSAL
							DATE P	INVT		DOCUMENT
13657-82-C-0403 (460)	13657-82-C-0008-1	04143	REMOTE PLOTTER ZETA RESEARCH INC MODEL 230-B-10 CS PO 15662 8-6-75 ESL 410	50610619	6375	50610619	08/75	A2 J8	DAYTON	NONE
13657-82-C-0403 (460)	13657-76-C-0008-3	04144	ACOUSTIC MODEM NOVATION INC MODEL DC3102-A CS PO 15787 8-6-75 ESL 450	50610619	275	50610619	08/75	A2 J8	DAYTON	NONE
13657-82-C-0403 (460)	13657-76-C-0009-2	04166	DATA TERMINAL TEXAS INSTRUMENTS INC 733 ASR CS PO 14054 3-13-75	50610619	3185	50610619	08/75	A2 J8	DAYTON	NONE
13657-82-C-0403 (460)	13657-76-C-0008-4	04168	GRAPHIC DISPLAY TERMINAL TEKTRONIX INC MODEL 4012 CS PO 20443 11-17-75	50610619	5595	50610619	08/75	A2 J8	DAYTON	NONE
13657-82-C-0403 (460)	13657-76-C-0008-5	04169	HARD COPY UNIT TEKTRONIX INC MODEL 4631 CS PO 20443 11-17-75	50610619	3895	50610619	08/75	A2 J8	DAYTON	NONE
13657-82-C-0403 (460)	13657-76-C-0009-6	04170	ACOUSTIC MODEM NOVATION INC MODEL DC3102-A CS PO 19511 7-30-75	50610619	275	50610619	08/75	A2 J8	DAYTON	NONE
13657-82-C-0403 (460)	13657-76-C-0491	04860	SECUREFAX FACSIMILE TRANSMITTER D101110 M-412F NO. 000-04370-32 MFG. RAPICOM W/AUTOMATIC DOCUMENT FEEDER M-ADF-14 S-1735 NO.000-04737 011 HALF-DUPLEX FAXMODEM M-FM-40A S-354 NO. 000-04122-01 C DATA ACCESS ARRANGEMENT: M-DAA-10 NO. 015 04710-02 RECEIVER D74343 14388 9-20-79 ESL 106080	1280	10000	E D74343	09/79	A2 77	BIRMINGHAM	
13657-82-C-0403 (460)	13657-76-C-0491	04166	TIME CODE TRANSLATOR/GENERATOR MODEL 9300 WITH OPTIONS AS FOLLOWS: 9CD TO BINARY CODE VERSION AND OUTPUT OF DAYS (9 BITS), SECONDS (17 BITS), MILLISECONDS (10 BITS) -- 36 BITS TOTAL. INTERNAL SERIAL STORAGE REGISTER. MFG DA JM, RR 4349B, 9-12-79 ESL NO. 106480	3041	2445	NR 43498	11/79	A1 99	HADARVAN	
13657-82-C-0403 (460)	13657-76-C-0491	04370	RANGE TRACKER UNIT (CALSPAN-FAB) GROUP OF VECTOR PLUG-IN MODULES LOCATED IN RACK-MOUNTED CARBON CAGE FORM 223 11-13-7 ESL NO. 106470		49522	E FORM 223	11/79	B2 04	HADARVAN	

CALIFORNIA CORPORATION
J-1/96 CONTRACT

SPONSOR OWNED PROPERTY

CONTRACT NUMBER CONTRACT TAG NUMBER SERIAL INVOICE COST ACQUIRING DATE LOCATION DISPOSAL DOCUMENT DATE P P P DATE P P P DATE P P P

03579 ATTENUATOR MANUAL STEP NARDA MODEL 9N01029 1478 SOG10878 03/73 A2 64 BSMEDCAP NONE
705/2705 (89) MFG. CODE 99899 07/82
CAL PO 65456 7-12-72
LISG #48190

05094 RECORDER CASSETTE PANASONIC 55 PQ 58927 08/02 A1 77 BSM3647
MODEL NO. NO 353 ESL 108920 07/85
SEE DAVID FAIRBANKS

TOT A	1533	A1	55	A2	1478	131	81	32	C	M	TOTAL	1533
33657-81-D-0146	33547	X-Y DISPLAY MELLETT-PACKARD MODEL 921-009	1610	SOG10878	03/73	A2	64	BSMEDCAP	NONE			
33657-72-C-0228-1		J109A WITH STANDARD P31 PHOSPHOR 25										
		DEAD UNIT NO MFG. CODE										
		CAL PO 65039 8-19-72										
		LISG #48140										

03578 AMPLIFIER SOLID STATE MODEL UTA-540 13 517 SOG10878 03/73 A2 64 BSMEDCAP NONE
BRQDQAND 5-1000 MMZ GAIN 1708 MIN.
AVANTEK INC.
CAL PO 65093 7-17-72
LISG #48180

03594 ATTENUATOR MANUAL STEP NARDA MODEL 01030 1478 SOG10878 03/73 A2 64 BSMEDCAP NONE
705/2705 (89) MFG. CODE 99899 10/85
CAL PO 65456 8-2-72
LISG #48010

03591 PULSE ENVIRONMENT GENERATOR CALSPAN 433153 E SOG10878 01/77 B2 84 BSMEDCAP
FABRICATED CONSISTING OF (3) SIX FT
EQUIPMENT RACKS WITH VOLTAGE CON-
TROLLED OSCILLA ORS-RF MODULATORS-
RF SWITCHES-POWER SUPPLIES-DIGITAL
CONTROL LOGIC-A-D SOFTWARE PROGRAM
TO OPERATE THE HARDWARE
FORM 223 6-9-77 ESL 80660

TOT A	3002	A1	3602	TOT B	83	53	31	B2	433153	TOT F	F1	F2	TOTAL	433
33657-81-D-0146 (W/A 694)	33591	PULSE ENVIRONMENT GENERATOR CALSPAN	433153	E	SOG10878	01/77	B2	84	BSMEDCAP					
33615-76-C-1180 (WA 737)		FABRICATED CONSISTING OF (3) SIX FT												
		EQUIPMENT RACKS WITH VOLTAGE CON-												
		TROLLED OSCILLA ORS-RF MODULATORS-												
		RF SWITCHES-POWER SUPPLIES-DIGITAL												
		CONTROL LOGIC-A-D SOFTWARE PROGRAM												
		TO OPERATE THE HARDWARE												
		FORM 223 6-9-77 ESL 80660												

TOT D TOTAL ITEMS

REDCAP

RECEIVED

10/87

4/18/89

SPONSOR OWNED PROPERTY

CALIFORNIA COMPENSATION
1/31/87 CONTRACT

CONTRACT NUMBER	CONTRACT TAG NUMBER	CAL CONTRACT NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE ACQUIRED	LOCATION	DISPOSAL DOCUMENT
FJ3657-HH-C-2093		06172	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11890	TAR20J6 660	JH2	PU 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06173	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11890	TAR20J1 409	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06174	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11890	TAR20J9 889	JH2	PU 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06175	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11890	TAR20J6 634	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06176	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11890	TAR20J9 836	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06177	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11890	TAR20J1 346	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06178	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11890	TAR20J1 181	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06179	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11890	TAR20J1 363	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06180	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11890	TAR20J6 419	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06181	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11900	TAR20J6 088	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06182	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11900	TAR20J6 470	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06183	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11900	TAR20J6 641	JH2	PO 94659	10/88 AT 64	REDCAP	
FJ3657-HH-C-2093		06184	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VTJ20 ESL# 11900	TAR20J6 6609	JH2	PO 94659	10/88 AT 64	REDCAP	

CALSPAN CORPORATION
1/18/89 CONTRACT

SPONSOR OWNED PROPERTY

CONTRACT NUMBER CONTRACT TAG NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE DATE INVOICE	TYPE P P T	LOCATION	DISPOSAL DOCUMENT P L
F33657-HH-C-209J F33657-HH-C-209J	06185	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VT320 ESL# 119049	TA832H 1331	JH2	PO 94659	10/88 01/89	AI 64	REDCAP	
F33657-HH-C-209J F33657-HH-C-209J	06186	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VT320 ESL# 119050	TA81435 182	JH2	PO 94659	10/88 01/89	AI 64	REDCAP	
F33657-HH-C-209J F33657-HH-C-209J	06187	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VT320 ESL# 119060	TA832H1 350	JH2	PO 94659	10/88 01/89	AI 64	REDCAP	
F33657-HH-C-209J F33657-HH-C-209J	06188	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VT320 ESL# 119070	TA820J 600H	JH2	PO 94659	10/88 01/89	AI 64	REDCAP	
F33657-HH-C-209J F33657-HH-C-209J	06189	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VT320 ESL# 119080	TA820J6 434	JH2	PO 94659	10/88 01/89	AI 64	REDCAP	
F33657-HH-C-209J F33657-HH-C-209J	06190	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VT320 ESL# 119090	TA832H1 359	JH2	PO 94659	10/88 01/89	AI 64	REDCAP	
F33657-HH-C-209J F33657-HH-C-209J	06191	MONITOR AND KEYBOARD, RS-232 INTERFACE, MFR:DEC, MODEL# VT320 ESL# 119100	TA832F9 897	JH2	PO 94659	10/88 01/89	AI 64	REDCAP	
F33657-HH-C-209J F33657-HH-C-209J	06196	ETHERNET BRIDGE, CENTRECOM 2900, ***** MODEL NO: AT-2900; MFR:ALLIED TELESIS INC. REP: KUN RAM	00F46A	2480	PO 95103	01/89 01/90	AI 64	BSLABJFR	
F33657-HH-C-209J F33657-HH-C-209J	06209	COMPUTER SYSTEM: SUN 4/110 MM BYTE ***** MONOCHROME DESKTOP WORKSTATION 6209A-KLYBOARD S/N67254J 6209B-CPU S/N851E0108 M/N347 6209C-MONITOR MONOCHROME S/NH50HM2727 PN.365-101601 MOUSE-S/MNSC LLO64755 CODE NAME: THUNDERCHIEF SER: T. JASINSKI YEAR BUILT 1988		11560		03/89 03/90	AI 64	BSRM34J2	
F33657-HH-C-209J	06210	COMPUTER SYSTEM: SUN 4/110 MM BYTE ***** MONOCHROME DESKTOP WORKSTATION 6210A-KLYBOARD S/N 67254I 6210B-LPU P/N 605-1065-01 M/N 347 S/N H5010776 YR. BUILT 1988 6210C-MONITOR MONOCHROME M/N 17P114A/6124 P/N165101601 S/N H430M2636 MOUSE S/N C0064747 SER T. JASINSKI CODE NAME: PHANTOM		11560		03/89 03/90	AI 64	BSRM34J2	

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CALSPAN CORPORATION
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SPONSOR OWNED PROPERTY

CONTRACT NUMBER CONTRACT TAG NUMBER	CAL CONTRACT NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE T ACQ Y L DATE P P INVE T	D L P T	LOCATION	D I P L	DISPOSAL DOCUMENT
FJJ657-88-C-209J FJJ657-88-C-209J	06216 *****	COMPUTER SYSTEM: SUN 4/110 MM BYTE MONOCHROME DESKTOP WORKSTATION 6216A-KEYBOARD S/N 691521 6216B-CPU S/N 851E0110 6216C-MONITOR MONOCHROME S/N 8508M2719 MOUSE-S/N CU061248 CODE NAME: TIGERSHARK SEE: T. JASINSKI YEAR BUILT 1988		13560		03/89 03/90	AI 64	B5RM34J2		
FJJ657-88-C-209J FJJ657-88-C-209J	06217 *****	COMPUTER SYSTEM: SUN 4/110 MM BYTE MONOCHROME DESKTOP WORKSTATION 6217A-KEYBOARD S/N 672439 6217-B CPU S/N 850E1735 6217C-MONITOR MONOCHROME S/N 848RM1716 MOUSE-S/N CU064743 CODE NAME: GALAXY SEE: T. JASINSKI YEAR BUILT 1988		13560		03/89 03/90	AI 64	B5RM34J2		
FJJ657-88-C-209J FJJ657-88-C-209J	06218 *****	COMPUTER SYSTEM: SUN 3/140M-8 4M BYTE DESKTOP WITH 4M BYTE BOARD 6218A-KEYBOARD S/N 270J 6218B-CPU S/N 904E0394 P/NJ3/140M-8 6218C-MONOCHROME MONITOR S/N8508M3715 P/NJ65-1016-01 MOUSE S/N MSC CU014495 SEE: T. JASINSKI YEAR BUILT 1988 CODE NAME: SENTRY		12720		03/89 03/90	AI 64	B5RM34J2		
FJJ657-88-C-209J FJJ657-88-C-209J	06219 *****	COMPUTER SYSTEM: SUN 3/140M-8 4M BYTE DESKTOP WITH 4M BYTE BOARD 6219A-KEYBOARD S/N 270JHH4 6219B-CPU S/N 904E0393 P/NJ1140M 6219C-MONOCHROME MONITOR S/N 8508M3718 M/N19P114A16124 MOUSE S/N CU014496 SEE: T. JASINSKI YEAR BUILT 1988 CODE NAME THUNDERB0		12720		03/89 03/90	AI 64	B5RM34J2		
FJJ657-88-C-209J FJJ657-88-C-209J	06220 *****	COMPUTER SYSTEM: SUN 4/110 MM BYTE DESKTOP WORKSTATION 6220A-KEYBOARD S/N674H05 6220B-CPU S/N851E0590 M/N347 6220C-COLOR MONITOR S/N84J06 M/N60M-1604-15 MOUSE S/N1E1CS012147 SEE: T. JASINSKI YEAR BUILT 1988 CODE NAME: TALON		14910		03/89 01/90	AI 64	B5RM34J2		

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CALIFORNIA CORPORATION
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SPONSOR OWNED PROPERTY

CONTRACT NUMBER CONTRACT TAG NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE ACQ Y E DATE P P INV L T	LOCATION	DISPOSAL DOCUMENT
F33657-BB-C-2093 F33657-BB-C-2093	06221 44444	COMPUTER SYSTEM: SUN 4/110 MM BYTE MONOCHROME DESKTOP WORKSTATION 6221A-KEYBOARD S/N672476 6221B-CPU S/M851E0105 M/NJ47 6221C-MONITOR MONOCHROME S/NH49BM2168 MOUSE-S/MCU064997 CODE NAME: AVENGER SEE: T. JASINSKI YEAR BUILT 1988		13560		03/89 AI 64 03/90	B5RNJ4J2	
F33657-BB-C-2093 F33657-BB-C-2093	06222 44444	COMPUTER SYSTEM: SUN 4/110 MM BYTE MONOCHROME DESKTOP WORKSTATION 6222A-KEYBOARD S/N 691555 6222B-CPU S/M 851E0107 M/NJ47 6222C-MONITOR MONOCHROME S/M849BM2167 MOUSE-S/MCU061264 CODE NAME: MUSTANG SEE: T. JASINSKI YEAR BUILT 1988		13560		03/89 AI 64 03/90	B5RNJ4J2	
F33657-BB-C-2093 F33657-BB-C-2093	06223 44444	COMPUTER SYSTEM: SUN 4/110 MM BYTE 6223-A KEYBOARD S/N668584 6223-B CPU S/M851E0126 M/NJ47 6223-C COLOR MONITOR S/M8J186 M/NLGM-1604-15 MOUSE S/MILTC50J19H5 SEE: T. JASINSKI YEAR BUILT 1988 CODE NAME: RAVEN		14910		03/89 AI 64 03/90	B5RNJ4J2	
F33657-BB-C-2093 F33657-BB-C-2093	06224 44444	COMPUTER SYSTEM: SUN J/140M-B 4M BYTE DESKTOP WITH 4M BYTE BOARD 6224A-KEYBOARD S/N 2779528 6224B-CPU S/N 904E0395 P/N J/140M-B 6224C-MONOCHROME MONITOR S/M850A21153 M/M M MOUSE S/N ELT CR16643 SEE: T. JASINSKI YEAR BUILT 1988 CODE NAME: HAWKEYE		12720		03/89 AI 64 03/90	B5RNJ4J2	
F33657-BB-C-2093 F33657-BB-C-2093	06225 44444	COMPUTER SYSTEM: SUN 4/110 MM BYTE DESKTOP WORKSTATION 6225A-KEYBOARD S/N890569 6225B-CPU S/N851E0H51 6225C-COLOR MONITOR S/N83786 MOUSE SN CR077709 SEE: T. JASINSKI YEAR BUILT 1988		14910		03/89 AI 64 03/90	B5RNJ4J2	

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CALSPAN CORPORATION
1/11/89 CONTRACT

SPONSOR OWNED PROPERTY

CONTRACT NUMBER CONTRACT TAG NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE T ACQ Y L DATE P P INVE T	U LOCATION	D DISPOSAL I DOCUMENT P E
F33657-88-C-2093 F33657-88-C-2093	06226 44444	COMPUTER SYSTEM: SUN 4/110 MM BYTE DESKTOP WORKSTATION 6226A-KEYBOARD S/N 676769 6226B-CPU S/N R370540 6226C-COLOR MONITOR S/N R370540 MOUSE S/M C806J479 SELL: T. JASINSKI YEAR BUILT 1988		14910		03/89 AI 03/90	64 BSRM3632	
F33657-88-C-2093 F33657-88-C-2093	06227 44444	COMPUTER SYSTEM: SUN 4/110 MM BYTE MONOCHROME DESKTOP WORKSTATION 6227A-KEYBOARD S/M69155J 6227B-CPU S/M849E0229 PN605-1065-01 6227C-MONITOR MONOCHROME S/M549B2636 PN365-1016-01 MOUSE-S/MC0061254 CUDI NAME: SELL: T. JASINSKI YEAR BUILT 1988		13560		03/89 AI 03/90	64 BSRM3632	
F33657-88-C-2093 F33657-88-C-2093	06228 44444	LASER WRITER II PRINTER APPLE M/N M6000 S/MC80J24UJAM6000 MFG. SUN YEAR BUILT 1988 SELL: T. JASINSKI YEAR BUILT 1988	M36J022 U	5440		03/89 AI 03/90	64 BSRM3632	
F33657-88-C-2093 F33657-88-C-2093	06229 44444	PRINTER, LASER WRITER II, 115 MANUFACTURER: SUN, M/N M6000 P/N: 365-1041-01, M6000 GRAPHICS CONTROLLER M/2M BYTES OF MEMORY 1/4" CARTRIDGE APPL S/M CAH4JRIK8- M6000 YEAR BUILT 1988	849-J00 50	5440		03/89 AI 03/90	64 BSRM3632	
F33657-88-C-2093 F33657-88-C-2093	06276 44444	EMULEX DISK DRIVE CABINET RACK MOUNT 47/440 HZ 115/230V 1.5/.75A 122M MODLL P609 SELL: T. JASINSKI		2300		03/89 AI 03/90	64 BSREDCAP	
F33657-88-C-2093 F33657-88-C-2093	06281 44444	DATA CENTER SERVER: SUN 4/2805-J2 MOUNTED IN CABINET CEN628H YEAR BUILT 1988	904L035 J	34,000		03/89 AI 03/90	64 BSRM3632	
F33657-88-C-2093 F33657-88-C-2093	06287 44444	COMPUTER SYSTEM: SUN 4/260 J2M BYTE DESKTOP WORKSTATION PORTABLE WHEEL 6287A MONOCHROME MONITOR S/M91AH0157 6287B DISK DRIVE S/M90211457 MNI267 6287C KEYBOARD S/M782997 PN370-1005-02 MOUSE S/MC0061254 SELL: T. JASINSKI YEAR BUILT 1988				03/89 AI 03/90	64 BSREDCAP	

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SPRINGBOR OWNED PROPERTY

CALSPAN CORPORATION
1/31/89 CONTRACT

CONTRACT NUMBER	CONTRACT TAG NUMBER	CAL CONTRACT NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE ACQUIRED	LOCATION	DISPOSAL DATE
FJ3657-HH-C-209J	FJ3657-HH-C-209J	06200	76 INCH DATA CENTER CABINET MANUFACTURER: SUN PMS95-1743-02 MODL 960A SEL: T. JASINSKI YEAR BUILT 1988	9041015	2925		03/89	64 BSREDCAP	03/90
FJ3657-HH-C-209J	FJ3657-HH-C-209J	06298	COMPUTER SYSTEM: SUN /110 MM BYTE MONOCHROME DESKTOP WORKSTATION 6298A-KEYBOARD S/N 672475 6298B-CPU S/M 849L0202 6298C-MONITOR MONOCHROME S/N 8488M1606 MOUSE S/M MSC CUD64659 SEL: T. JASINSKI YEAR BUILT 1988	12720			03/89	64 BSREDCAP	03/90
FJ3657-HH-C-209J	FJ3657-HH-C-209J	06299	COMPUTER SYSTEM: SUN 4/110 MM BYTE COLOR DESKTOP WORKSTATION 6299A-KEYBOARD S/M 676472 6299B-CPU S/M851E0125 PM605-1067-01 6299C-MONITOR S/M 8J20252 MOUSE S/M LLT C5033114 SEL: T. JASINSKI YEAR BUILT 1988	14910			03/89	64 BSREDCAP	03/90
FJ3657-HH-C-209J	FJ3657-HH-C-209J	06300	COMPUTER SYSTEM: SUN 4/110 MM BYTE MONOCHROME DESKTOP WORKSTATION 6300A-KEYBOARD S/M 691511 6300B-CPU S/M 850L0771 6300C-MONITOR S/M 8498M2030 MOUSE S/M MSC CUD61144 SEL: T. JASINSKI YEAR BUILT 1988	12720			03/89	64 BSREDCAP	03/90
FJ3657-HH-C-209J	FJ3657-HH-C-209J	06301	COMPUTER SYSTEM: SUN 4/110 MM BYTE MONOCHROME DESKTOP WORKSTATION A-KEYBOARD S/M 694676 B-CPU S/M 850E1720 C-MONITOR S/M850DR27J9 MOUSE S/M MSC CUD61212 SEL: T. JASINSKI YEAR 1988	12720			03/89	64 BSREDCAP	03/90
FJ3657-HH-C-209J	FJ3657-HH-C-209J	06302	EMULX DISK DRIVE CABINET 67/440 MZ 115/230V MULL P109 10.5/0.75 AMP 122W SEL: T. JASINSKI	2300			03/89	64 BSREDCAP	03/90
FJ3657-HH-C-209J	FJ3657-HH-C-209J	06303	EMULX DISK DRIVE CABINET 67/440 MZ 115/230V MULL P109 10.5/0.75 AMP 122W SEL: T. JASINSKI	2300			03/89	64 BSREDCAP	03/90

LALS-PAN COMPUTATION
1/11/89 CONTRACT

SPUN-IN UMNIU PROPERTY

CONTRACT TAG NUMBER	SERIAL NUMBER	DESCRIPTION	INVOICE COST	ACQUIRING DOCUMENT	DATE ACQUIRED	LOCATION	DISPOSAL
FJ1657-88-209J	06230	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06231	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06232	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06233	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06234	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06235	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06236	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06237	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06238	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06239	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06240	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06241	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P
FJ1657-88-209J	06242	EMULEX DISK DRIVE SM-ER250/180	2000		03/89	64 BSREDCAP	
FJ1657-88-209J	AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)			03/89		P

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CALIFORNIA CORPORATION
 1/11/87 CONTRACT

CONTRACT NUMBER	CONTRACT TAG NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE C.O.I.	ACQUIRING INVENTORY DATE	DATE ACQ. DATE	LOCATION	DISPOSAL
						DATE	DATE		DATE
FJ3657-88-209J		06243	EMULEX DISK DRIVE SN-ER250/180		2000	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)						
FJ3657-88-209J		06244	EMULEX DISK DRIVE SN-ER250/180		2000	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)						
FJ3657-88-209J		06245	EMULEX DISK DRIVE SN-ER250/180		2000	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)						
FJ3657-88-209J		06246	EMULEX DISK DRIVE SN-ER250/180		2000	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)						
FJ3657-88-209J		06247	EMULEX DISK DRIVE SN-ER250/180		2000	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)						
FJ3657-88-209J		06248	EMULEX DISK DRIVE		4127	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	760 MB REMOVABLE DISK WITH CARRYING CASE (RED)						
FJ3657-88-209J		06249	EMULEX DISK DRIVE		4127	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	760 MB REMOVABLE DISK WITH CARRYING CASE (RED)						
FJ3657-88-209J		06250	EMULEX DISK DRIVE		4127	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	760 MB REMOVABLE DISK WITH CARRYING CASE (RED)						
FJ3657-88-209J		06251	EMULEX DISK DRIVE		4127	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	760 MB REMOVABLE DISK WITH CARRYING CASE (RED)						
FJ3657-88-209J		06252	EMULEX DISK DRIVE		4127	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	760 MB REMOVABLE DISK WITH CARRYING CASE (RED)						
FJ3657-88-209J		06253	EMULEX DISK DRIVE		4127	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	760 MB REMOVABLE DISK WITH CARRYING CASE (RED)						
FJ3657-88-209J		06254	EMULEX DISK DRIVE CABINET		2100	03/89	03/89	64 BSREDCAP	
FJ3657-88-209J		AAAAA	MULL PLOY 67/440 HZ 115/230V 1.5/0.75 AMP 122M						

Sgt. F. JASINSKI

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CONTRACT NUMBER	CONTRACT TAG NUMBER	CAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE CUST	ACQUIRING DOCUMENT	DATE T ACY V L DATE P P INV E T	LOCATION	DISPOSAL DOCUMENT
FJJ657-88-209J		06255	EMULEX DISK DRIVE CABINET 47/440 HZ 115/230V 1.5/.75 AMP 121W SEL: T. JASINSKI		2300		03/89 AI 64 BSREDCAP 03/89		
FJJ657-88-209J		06256	EMULEX DISK DRIVE CABINET 47/440 HZ 115/230V 1.5/.75 AMP 121W SEL: T. JASINSKI		2300		03/89 AI 64 BSREDCAP 03/89		
FJJ657-88-209J		06257	EMULEX DISK DRIVE CABINET 47/440 HZ 115/230V 1.5/.75 AMP 122W SEL: T. JASINSKI		2300		03/89 AI 64 BSREDCAP 03/89		
FJJ657-88-209J		06258	EMULEX DISK DRIVE CABINET 47/440 HZ 115/230V 1.5/.75 AMP 122W SEL: T. JASINSKI		2300		03/89 AI 64 BSREDCAP 03/89		
FJJ657-88-209J		06259	EMULEX DISK DRIVE CABINET 47/440 HZ 115/230V 1.5/.75 AMP 122W SEL: T. JASINSKI		2300		03/89 AI 64 BSREDCAP 03/89		
FJJ657-88-209J		06260	EMULEX DISK DRIVE CABINET 47/440 HZ 115/230V 1.5/.75 AMP 122W SEL: T. JASINSKI		2300		03/89 AI 64 BSREDCAP 03/89		
FJJ657-88-209J		06261	EMULEX DISK DRIVE CABINET 47/440 HZ 115/230V 1.5/.75 AMP 122W SEL: T. JASINSKI		2300		03/89 AI 64 BSREDCAP 03/89		
FJJ657-88-209J		06262	EMULEX DISK DRIVE CABINET 47/440 HZ 115/230V 1.5/.75 AMP 122W SEL: T. JASINSKI		2300		03/89 AI 64 BSREDCAP 03/89		
FJJ657-88-209J		06263	EMULEX DISK DRIVE CABINET 47/440 HZ 115/230V 1.5/.75 AMP 122W SEL: T. JASINSKI		2300		03/89 AI 64 BSREDCAP 03/89		

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CONTRACT NUMBER	CONTRACT TAG NUMBER	LAL CONTROL NUMBER	DESCRIPTION	SERIAL NUMBER	INVOICE COST	ACQUIRING DOCUMENT	DATE ACQ V E	LOCATION	DISPOSAL DOCUMENT
FJ3657-MH-209J		06273	EMULEX DISK DRIVE CABINET MODL PE09 RACK MOUNT 47/440 HZ 115/2J0V 1.5/0.75 AMP 122W SEL: T. JASINSKI	0			03/89	64 BSREDCAP	
FJ3657-MH-209J		06274	EMULEX DISK DRIVE CABINET RACK MOUNT MODEL PE09 47/440 HZ 115/2J0V 1.5/0.75 AMP 122W SEL: T. JASINSKI	2300			03/89	64 BSREDCAP	
FJ3657-MH-209J		06275	EMULEX DISK DRIVE CABINET RACK MOUNT MODEL PE09 47/440 HZ 115/2J0V 1.5/0.75 AMP 122W SEL: T. JASINSKI	2300			03/89	64 BSREDCAP	
FJ3657-MH-209J		06277	EMULEX DISK DRIVE 760 MB REMOVABLE DISK WITH CARRYING CASE (RED) LPM DRAFT MODE CONTRACT PERSON: TOM JASINSKI	4127			03/89	64 BSREDCAP	
FJ3657-MH-209J		06278	EMULEX DISK DRIVE 760 MB REMOVABLE DISK WITH CARRYING CASE (RED)	4127			03/89	64 BSREDCAP	
FJ3657-MH-209J		06279	EMULEX DISK DRIVE 760 MB REMOVABLE DISK WITH CARRYING CASE (RED)	4127			03/89	64 BSREDCAP	
FJ3657-MH-209J		06306	EMULEX DISK DRIVE SM-LR25U/1R0 180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)	2000			03/89	64 BSREDCAP	
FJ3657-MH-209J		06307	EMULEX DISK DRIVE SM-LR25U/1R0 180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)	2000			03/89	64 BSREDCAP	
FJ3657-MH-209J		06308	EMULEX DISK DRIVE SM-LR25U/1R0 180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)	2000			03/89	64 BSREDCAP	
FJ3657-MH-209J		06309	EMULEX DISK DRIVE SM-LR25U/1R0 180 MB REMOVABLE DISKS WITH CARRYING CASE (RED)	2000			03/89	64 BSREDCAP	
TOT A	11161	A2	TOTAL	B2	TOT F			TOTAL	11343
TOT U	11174	B2	TOTAL	M2	TOT L			TOTAL	11343



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4/12/89

CALSPAN CORPORATION

Small Business and Small Disadvantaged Business
Subcontracting Plan

No. 88-12

Date 10/12/88

Federal Agency WPAFB

Calspan Proposal No. 9104 (F33657-88-C-2093)

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

1. Estimated Planned Subcontracts

a.	<u>Percentage Goals</u>	<u>Subcontract Dollars</u>
Total Planned Subcontracts	<u>100.0</u>	<u>909,815</u>
To Small Business	<u>33.1</u>	<u>301,149</u>
To Small Disadv. Business	<u>3.3</u>	<u>30,024</u>
TOTAL	<u>36.4</u>	<u>331,123</u>
To Large Business	<u>63.6</u>	<u>578,642</u>

b. The principal supplies and services anticipated to be subcontracted to Small and Small Disadvantaged Businesses will be in the following areas:

Small Business - Electronic subassemblies, RF part, electronic parts, racks, and hardware.

Small Disadvantaged Business - Electronic Supplies, Electrical and Plumbing Supplies

The principal supplies and services anticipated to be subcontracted to Large Businesses, either because they are specified by the customer or they are not obtainable from small businesses, will be in the following areas:

PPI Graphic Systems and computer subsystems

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- c. To develop the small and small disadvantaged business procurement goals, Calspan has a procedure whereby a meeting is held to determine the potential subcontracting opportunities after the first draft of the proposal cost estimate is prepared. Participants vary depending upon the nature of the program, but the Purchasing Manager, the SBLO, Contract Manager and Proposal Engineer are the regular attendees. For this subcontracting plan a meeting was held among:

Peter J. Calinski - Technical
V. John Soron - Contracts
Dana A. Young - Pricing
John R. Eagan - Subcontracts

- d. Calspan has not included any costs related to indirect or overhead purchases obtained from small and small disadvantaged businesses, in this subcontracting plan goals.

- e. Source references utilized:

- o The Small Business Administration Procurement Automated Source System
- o Current Edition of National Minority Business Director - "Try Us"
- o Department of Defense Small Business Directory distributed by DCASR, Boston, published by Cameron Station, Virginia
- o Registry of Minority Firms published by the Small Business Administration
- o Department of Defense Minority Business Directory from DCASR, Boston
- o Small Disadvantaged Business Concerns Source list compiled in-house.

2. The Subcontracting Plan will be administered by:

John R. Eagan, Purchasing Manager, Primary, (716) 631-6795

Secondary: Elaine Rowley, Buyer (716) 631-6791

Post Office Box 400, Buffalo, New York 14225

The primary Small Business Liaison Officer (SBLO) is also the Manager of the Purchasing Section. The secondary SBLO has a direct Reporting Line to Mr. Eagan. The SBLO duties include keeping top management advised on a monthly basis of the small business subcontracting program, preparation and submittal of the required quarterly and semi-annual reports, conducting reviews with Government representatives and providing liaison and interface with the purchasing department on small and disadvantaged sources, procurements, etc.

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As early as 1964 Calspan Corporation used a computerized system to monitor the various procurement actions identified as large, small, minority, local, etc. business concerns. Subsequently, this system was adopted by other area concerns involved in Government contracting. A special summary printout of all actions of \$10,000 or more is a part of the system originally intended for responding to the old voluntary Small Business Utilization Program. We recently expanded the system to produce a printout of all purchases by contract by business concern category to accommodate the review and reporting requirements for individual subcontracting plans. The Small Business Liaison Officer is responsible for submission of required subcontracting reports, Standard Form 295 (Federal Agency Quarterly Summary Subcontracting Report) and Standard Form 294 (Federal Agency Individual Subcontracting Report), to the respective Government agencies including the Small Business Administration and DLA, DCAS representatives.

3. Since Calspan Corporation is a research, development and testing organization and does not engage in manufacturing, it does not have an established make or buy procedure. The problem is addressed separately and distinctly for each individual requirement as it occurs. Consequently, the question of make or buy is included in the initial discussion described above by the individuals concerned. There are always members of purchasing management in attendance at the make or buy meetings.

Calspan Corporation operates under a DoD-approved procurement system. As a part of this system each buyer has been instructed in the requirements of P.L. 95-507. Further, continuous informal instructions are given to pertinent purchasing personnel for periodic updating on P.L. 95-507 requirements. Written documentation is mandated as part of every Calspan procurement in excess of \$100, showing the extent of competition among small and small disadvantaged vendors; the reasons for awarding to the successful bidder; and reasons as to why small and small disadvantaged business did or did not win the award, when such is the case.

4. This Small Business Subcontracting Plan will be administered in accordance with the provisions in FAR 19.704 (Small Business Act, i.e. P.L. 95-507) and Calspan's government-approved procurement system and procedures, to assure equitable competition under the statute and the flow down of required clauses to each required subcontracting tier.

Lower tier subcontractors to Calspan will be required to submit plans for subcontracts in excess of \$500,000 in accordance with FAR 19.704(a)(4).

Calspan's SBLO has the responsibility for submission of SF-294 and SF-295 forms in accordance with the instructions on these forms as required by FAR 19.704(a)(5).

Calspan Corporation agrees to include the following clauses in any subcontract it issues when required:

- o FAR 52.219-8 Utilization of Small Business Concerns and Small Disadvantaged Business Concerns

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- o DAR 7-104.14(a) Utilization of Small Business and Small Disadvantaged Business Concerns
 - o FAR 52.219-9 Small Business and Small Disadvantaged Business Subcontracting Plan
 - o DAR 7-104.14(b) Subcontracting Plan for Small and Small Disadvantaged Business Concerns (Negotiated) (1980 AUG)
5. Calspan Corporation agrees to submit additional periodic reports and cooperate in any studies or surveys as may be required by a federal agency or the Small Business Administration in order to determine the extent of compliance with the Subcontracting Plan submitted herein.
6. Listing of types of records Calspan Corporation maintains:
- a. Small and disadvantaged business source lists, guides, and other data identifying small and small disadvantaged business vendors.
 - b. Organizations contacted for small and disadvantaged business sources.
 - c. On a contract-by-contract basis, records on all subcontract solicitations over \$10,000, indicating on each solicitation (i) whether small business was solicited and if not, why not; (ii) whether small disadvantaged business was solicited and if not, why not; and (iii) reasons for the failure of responding small businesses to receive the subcontract award.
 - d. Records to support such efforts as: (i) contacts with disadvantaged and small business trade associations; (ii) contacts with business development organizations; and (iii) attendance at small and disadvantaged business procurement conferences and trade fairs.
 - e. Records to support internal activities to guide and encourage buyers such as: (i) workshops, seminars, training programs, etc.; and (ii) monitoring activities to evaluate compliance.
 - f. On a contract-by-contract basis, records to support award data submitted to the Government to include name, address, and size status of subcontractor.
 - g. On a contract-by-contract basis, a computer printout of the dollar amount of all awards made identifying small and small disadvantaged vendors.
 - h. Buyer's checkoff sheets indicating number of small and disadvantaged business concerns solicited for each award.
 - i. Individual small business subcontract plan files.
 - j. Semi-annual individual status reports for each subcontract plan.

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- k. Quarterly summary subcontracting reports for each federal agency.
- l. Small Business Administration letters of compliance for each small business subcontract plan.

In order to implement this plan in the most effective manner, Calspan Corporation has taken various positive actions and can demonstrate through prior examples that it is making a good faith effort to comply with the spirit and intent of P.L. 95-507.

- 1. Calspan Corporation management is kept well informed and fully involved in the company program for utilization of small and small disadvantaged business concerns. At the direction of the General Manager, the SBLO has briefed the approximately forty (40) top managers of Calspan Corporation at one of their monthly staff meetings on the requirements of P.L. 95-507. Calspan Corporation maintains a company policy on Utilization of Small and Small Disadvantaged Business Concerns, identified as Procedure 604. (A copy of the procedure is available upon request.)
- 2. Calspan Corporation and its predecessor company participated in the original "volunteer" program of reporting to the Department of Defense and the Small Business Administration since the plan's inception, and currently continues to file the required reports. We have an annual review by Procurement Specialists from both DCASR and the Small Business Administration attesting to our ongoing good-faith compliance with the regulations. Management is kept informed on the program activities through a formal reporting system.
- 3. All buying personnel are kept informed and support the small and small disadvantaged business firms due to a requirement that every purchase over \$100 be documented accordingly. Informal meetings, occasional formal briefings and attendance at seminars keep the small business program highly visible.
- 4. Calspan Corporation has frequently offered special assistance to small and small disadvantaged businesses, beyond normal business procedures. Two recent examples are:
 - a. A unique small business concern had built ten (10) prototype Research Safety Vehicles (RSV) under a Calspan subcontract. Because of their size and limited credit capabilities when compared to the costs involved in the program, Calspan gave special consideration by making advanced payments to assist them in keeping the program moving. Further, our Technical Program Manager, Director of Materiel Services, Purchasing Manager, Subcontracts Administrator and our Small Business Liaison Officer each made at least one trip (some made several) to this subcontractor's facilities in another city, to provide expertise with various problems inherent in government contracting since this was their first U. S. Government subcontract.

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- b. The Calspan Purchasing Manager was clearly instrumental in assisting a local minority female in establishing a secretarial service and obtaining a U. S. Government clearance for her employees. Since this business was initiated it has grown into a full service operation providing secretarial, engineering and technical support personnel. Several government subcontractors in our area now avail themselves of services from this female-owned small disadvantaged entrepreneur, thus aiding the government's program directly.

As further evidence of Calspan's corporate involvement with the small/small disadvantaged program, it should be noted that Calspan's Purchasing Manager is a member of the Board of Directors of the Buffalo Chapter of the Upstate New York Minority Purchasing Council Inc. Calspan Corporation was the second charter-member company in the Council and contributed to the financial assistance in establishing this chapter. Calspan Corporation provides office space to the "Upstate Minority Purchasing Council" on a rent-free basis. This space provides necessary office space and a conference room which is used to conduct Council business. Calspan's Purchasing Manager has both chaired, and served on the organizational committee, for local annual Small Business Minority Business Trade Fairs sponsored by the Purchasing Management Association in conjunction with the Council. Another staff member has been one of two Calspan's representatives participating in U. S. Department of Commerce, Area Small Business Orientation Seminars which were established to acquaint small businesses in the proper procedures required to obtain work for the government.

5. As noted in our basic subcontracting plan, Calspan Corporation provides adequate and timely consideration to the potentialities of small and small disadvantaged business concerns through its established procedures.
6. Calspan Corporation welcomes the opportunity to discuss subcontracting possibilities with representatives of small and small disadvantaged business firms as a means of expanding its source lists for the various complex items required in the performance of R&D programs.

In summary, we note:

1. Calspan Corporation procurements from small businesses have historically been between 65% to 70% of all procurement activity.
2. Our awards to small disadvantaged businesses have significantly increased over the previous years — a major accomplishment when you consider that the highly sophisticated nature of our research and development efforts are not easily supported by the average small disadvantaged business concern.

Mod. P00004 - 3/1/90 - Incorporates by Reference:

(a) P00007, Plan No. 90-1, 17 Jan 90, for Sensitive Compartmented Information Facility (SCIF) with a total subcontract amount of \$399,744; 94.4%/\$377,316 is for small business concerns and 5.0%/\$19,989 for small disadvantaged business concerns.

(b) P00008, Plan No. 90-2, 17 Jan 90 for System Integration, with a total subcontract amount of \$5,212; 71.1%/\$3,700 is for small business concerns and 5.0%/\$260 for small disadvantaged business concerns.

Add 3/1/90

F33657-88-C-2093; P00004
ATTACHMENT NUMBER 8a

CALSPAN CORPORATION

Small Business and Small Disadvantaged Business
Subcontracting Plan

No. 90-03
Supersedes 89-07

Date 17 January 1990

Federal Agency: Wright-Patterson Air Force Base

Calspan Proposal No. 9284

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

1. Estimated Planned Subcontracts

	<u>Percentage Goals</u>	<u>Subcontract Dollars</u>
a. Total Planned Subcontracts	<u>100.0%</u>	<u>\$13,321,792</u>
To Small Business	<u>55.6%</u>	<u>7,403,391</u>
To Small Disadv. Business	<u>5.0%</u>	<u>666,089</u>
TOTAL	<u>60.6%</u>	<u>\$ 8,069,480</u>
To Large Business	<u>30.4%</u>	<u>5,252,312</u>

b. The principal supplies and services anticipated to be subcontracted to Small and Small Disadvantaged Businesses will be in the following areas:

- Electronic Parts, 1 C Rack, RF Components, Computer Parts and Supplier
- Small Disadvantaged Women-Owned Businesses - Technicians, Draftsmen, Tech Writers, Electronic Parts

The principal supplies and services anticipated to be subcontracted to Large Businesses, either because they are specified by the customer or they are not obtainable from small businesses, will be in the following areas:

- Hughes Aircraft (2,418,538) follow-on Procurement for Command and Control Console
- SUN Microsystems (958,966) follow-on Procurement for Work Station

add 3/1/90

F33657-88-C-2093; P00004
ATTACHMENT NUMBER 8a

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- c. To develop the small and small disadvantaged business procurement goals, Calspan has a procedure whereby a meeting is held to determine the potential subcontracting opportunities after the first draft of the proposal cost estimate is prepared. Participants vary depending upon the nature of the program, but the Purchasing Manager, the SBLO, Contract Manager and Proposal Engineer are the regular attendees. For this subcontracting plan a meeting was held among:

Peter J. Calinski	-	Technical
V. John Soron	-	Contracts
Brad Burch	-	Pricing
John Eagan	-	Subcontracts

Since Calspan Corporation is a research, development and testing organization and does not generally engage in manufacturing, it does not have an established make or buy procedure. The problem is addressed separately and distinctly for each individual requirement as it occurs. Consequently, the question of make or buy is included in the initial discussion described above by the individuals concerned. There are always members of purchasing management in attendance at the make or buy meetings.

- d. Calspan has not included any costs related to indirect or overhead purchases obtained from small and small disadvantaged businesses, in this subcontracting plan goals.

- e. Some of the source references utilized:

- The Small Business Administration Procurement Automated Source System.
- Current Edition of National Minority Business Director - "Try Us".
- Department of Defense Small Business Directory distributed by DCASR, Boston, published by Cameron Station, Virginia.
- Registry of Minority Firms published by the Small Business Administration.
- Department of Defense Minority Business Directory from DCASR, Boston.
- Small Disadvantaged Business Concerns Source bid compiled in-house.
- DOD Deputy for Small Business, DCAS Management Area, Buffalo.

Add 3/1/90

F33657-88-C-2093; P00004
ATTACHMENT NUMBER 8a

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- Upstate New York Regional Minority Purchasing Council, Inc., certified listing.
- Listing of Small Disadvantaged Businesses (SBDs) Offered Technical Assistance Services by Mesa Services International, Inc. provided by Office of Small and Disadvantaged Business Utilization.
- Firms listed in the 8(A) Business Development Program of the U. S. Small Business Administration.
- Department of Defense funded listing entitled "An Inventory of the Capabilities of the Historically Black Colleges and Universities and Other Minority Institutions (HBCUs/MIs)" prepared by The National Association for Equal Opportunity in Higher Education.

2. The Subcontracting Plan will be administered by:

John R. Eagan, Purchasing Manager, Primary, (716) 631-6795

Secondary: Richard J. Daley, Subcontracts Administrator (716) 631-6768
Calspan Corporation, Advanced Technology Center
Post Office Box 400, Buffalo, New York 14225

The primary Small Business Liaison Officer (SBLO) is also the Manager of the Purchasing Section. The secondary SBLO has a direct Reporting Line to Mr. Eagan. The SBLO duties include keeping top management advised on a monthly basis of the small business subcontracting program, preparation and submittal of the required quarterly and semi-annual reports, conducting reviews with Government representatives and providing liaison and interface with the Purchasing Department on small and disadvantaged sources, procurements, monitoring performance against subcontract plans to evaluate compliance and initiate corrective action when necessary, maintenance of all internal records pertaining to the Small Business Program, and maintenance of contacts with all Government agencies regarding subcontracting activities at Calspan.

Additional duties of the SBLO include, but are not limited to, ensuring that goals are established for each subcontracting plan. Moreover, the SBLO also reviews each plan to ensure that goals are both realistic and achievable and that all elements of the plan are accurate, complete and current prior to submittal and throughout contract performance. The SBLO also ensures that the composite goals always contain consideration of the capabilities of Historically Black Colleges and Universities and other Minority Institutions. Furthermore, the SBLO represents Calspan at Federal, State and privately organized procurement conferences, workshops and trade fairs conducted locally, regionally and nationally.

Add 3/1/90

F33657-88-C-2093; P00004
ATTACHMENT NUMBER 8a

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As early as 1964 Calspan Corporation used a computerized system to monitor the various procurement actions identified as large, small, minority, local, etc. businesses concerns. Subsequently, this system was adopted by other area concerns involved in Government contracting. A special summary printout of all actions of \$10,000 or more is a part of the system originally intended for responding to the old voluntary Small Business Utilization Program. We recently expanded the system to produce a printout of all purchases by contract by business concern category to accommodate the review and reporting requirements for individual subcontracting plans. The Small Business Liaison Officer is responsible for submission of required subcontracting reports, Standard Form 295 (Federal Agency Quarterly Summary Subcontracting Report) and Standard Form 294 (Federal Agency Individual Subcontracting Report), to the respective Government agencies including the Small Business Administration and DLA, DCAS representatives in accordance with the instructions on these forms as required by FAR 19.704(A)(5).

3. Efforts

- (A) Calspan Corporation has developed a division-wide policy statement signed by the Senior Vice President and General Manager of Calspan Advanced Technology Center which acknowledges the company's contractual commitment to the Small Business Program. Responsibility for compliance rests with managers through the organization who are capable of implementing the policy including program managers, purchasing personnel, and item end users.
- (B) Calspan Corporation conducts formal training relative to SASDB subcontracting requirements training for all personnel involved in the acquisition cycle at least annually. Training is conducted more frequently for purchasing personnel and provides the context to disseminate data relative to actual achievements against subcontracting goals.
- (C) Calspan Corporation assists SASDB firms by arranging solicitations, response cycles, quantities, and delivery schedules to encourage SASDB participation in the subcontracting process to an extent consistent with efficient prime contract performance.
- (D) Calspan's Senior Management is apprised of achievements against subcontracting plans as well as the overall status of the Small Business Program at least annually.
- (E) Potential subcontractors are counseled directly on specific acquisitions and generally at Procurement Conferences and/or Trade Fairs in an effort to increase SASDB participation in the subcontracting process.
- (F) Financial and/or technical assistance is provided to both Small Business and Small Disadvantaged Business whenever necessary, practical, and consistent with efficient Prime Contract performance.

Add 3/1/90

F33657-88-C-2093; P00004
ATTACHMENT NUMBER 8a

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- (G) Calspan Corporation operates under a DoD-approved procurement system. As a part of this system each buyer has been instructed in the requirements of P.O. 95-507, as well as pertinent, additional requirements contained in P.L. 99-661, "National Defense Procurement Act of 1987" which establishes a five (5%) percent goal for participation in the U. S. Department of Defense procurement process for Small Disadvantaged Businesses (SDBs), Historically Black Colleges and Universities (HBCUs) and other Minority Institutions (MIs), P.L. 100-180, Section 806: "Requirement for Substantial Progress on Minority and Small Business Contract Awards", and P.L. 100-656, "Business Opportunity Development Reform Act of 1988". Further, continuous informal instructions are given to pertinent purchasing personnel for periodic updating on these, and any subsequent public laws enacted which concern procurement activities involving small and small disadvantaged businesses. Written documentation is mandated as part of every Calspan procurement in excess of \$250, showing the extent of competition among small and small disadvantaged vendors; the reasons for awarding to the successful bidder; and reasons as to why small and small disadvantaged business did or did not win the award, when such is the case.

4. Flow Down Requirements

Calspan Corporation agrees to include the clause in the contract entitled "Utilization of Small Business Concerns and Small Disadvantaged Concerns" (FAR 52.219-8), in all subcontracts that offer further subcontracting opportunities, and will require all subcontractors (except small business) who receive subcontracts in excess of \$500,000 (\$1,000,000 for construction work) to adopt a plan similar to the plan agreed to by Calspan.

5. Reports and Studies

Calspan Corporation agrees to submit additional periodic reports and cooperate in any studies or surveys as may be required by a federal agency or the Small Business Administration in order to determine the extent of compliance with the Subcontracting Plan submitted herein. Calspan will submit Standard Form (SF) 294 and 295 in accordance with instructions. In addition, Calspan agrees to ensure that subcontractors develop and submit subcontracting plans similar to the one prepared by Calspan and submit SF 294's to demonstrate the level of compliance with each plan.

6. Listing of Types of Records Calspan Corporation Maintains

- a. Small and disadvantaged business source lists, guides, and other data identifying small and small disadvantaged business vendors.
- b. Organizations contacted for small and disadvantaged business sources.
- c. On a contract-by-contract basis, records on all subcontract solicitations over \$10,000, indicating on each solicitation (i) whether small business was solicited and if not, why not; (ii) whether small disadvantaged business was

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solicited and if not, why not; and (iii) reasons for the failure of responding small businesses to receive the subcontract award.

- d. Records to support such efforts as: (i) contacts with disadvantaged and small business trade associations; (ii) contacts with business development organizations; and (iii) attendance at small and disadvantaged business procurement conferences and trade fairs.
- e. Records to support internal activities to guide and encourage buyers such as : (i) workshops, seminars, training programs, etc.; and (ii) monitoring activities to evaluate compliance.
- f. On a contract-by-contract basis, records to support award data submitted to the Government to include name, address, and size status of subcontractor.
- g. On a contract-by-contract basis, a computer printout of the dollar amount of all awards made identifying small and small disadvantaged vendors.
- h. Buyer's checkoff sheets indicating number of small and disadvantaged business concerns solicited for each award.
- i. Individual small business subcontract plan files.
- j. Semi-annual individual status reports for each subcontract plan.
- k. Quarterly summary subcontracting reports for each federal agency.
- l. Small Business Administration letters of compliance for each small business subcontract plan.

In order to implement this plan in the most effective manner, Calspan Corporation has taken various positive actions and can demonstrate through prior examples that it is making a good faith effort to comply with the spirit and intent of P.L. 95-507, as well as P.L. 99-661, P.L. 100-180 and P.L. 100-656.

1. Calspan Corporation management is kept well informed and fully involved in the company program for utilization of small and small disadvantaged business concerns. At the direction of the General Manager, the SBLO has briefed the approximately forty (40) top managers of Calspan Corporation at one of their monthly staff meetings on the requirements of the various Public Laws cited above. Calspan Corporation maintains a company policy on Utilization of Small and Small Disadvantaged Business Concerns, identified as Procedure 604. (A copy of the procedure is available upon request.)
2. Calspan Corporation and its predecessor company participated in the original "volunteer" program of reporting to the Department of Defense and the Small Business Administration since the plan's inception, and currently continues to file the required reports. We have an annual review by Procurement Specialists from both DCASR and the Small Business Administration attesting to our ongoing good-

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faith compliance with the regulations. Senior Management is kept informed on the program activities through a formal reporting system.

3. All buying personnel are kept informed and support the small and small disadvantaged business firms due to a requirement that every purchase over \$250 be documented accordingly. Informal meetings, occasional formal briefings and attendance at seminars keep the small business program highly visible.
4. Calspan Corporation has frequently offered special assistance to small and small disadvantaged businesses, beyond normal business procedures. Some examples are:
 - a. A unique small business concern has built ten (10) prototype Research Safety Vehicles (RSV) under a Calspan subcontract. Because of their size and limited credit capabilities when compared to the costs involved in the program, Calspan gave special consideration by making advanced payments to assist them in keeping the program moving. Further, our Technical Program Manager, Director of Materiel Services, Purchasing Manager, Subcontracts Administrator and our Small Business Liaison Officer each made at least one trip (some made several) to this subcontractor's facilities in another city, to provide expertise with various problems inherent in Government contracting since this was their first U. S. Government contract.
 - b. The Calspan Purchasing Manager was clearly instrumental in assisting a local minority female in establishing a secretarial service and obtaining a U. S. Government clearance for her employees. Since this business was initiated it has grown into a full service operation providing secretarial, engineering and technical support personnel. Several Government subcontractors in our area now avail themselves of services from this female-owned small disadvantaged entrepreneur, thus aiding the Government's program directly.
 - c. Calspan recently was awarded its first production contract, called the ALAD Program which is a military/chemical detector unit. The alarm is setoff when the chemical hits a molded plastic disc and breaks a painted surface in the subtrack of the disc.

The application of the paint is a special process paint mixture of flakes and a special application of same.

This process is proprietary to Calspan.

J. R. Products, a small business in Orchard Park, New York has been awarded to mold the plastic disc and has been especially trained by Calspan's technical staff to apply the paint.

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The award to J. R. Products for the molded disc for production and options amount to \$387,342 and of that amount \$193,890 is for the special painting.

If Calspan did not train J. R. Products on how to apply the special paint, the work would have been performed at Calspan.

Calspan is also advance paying on a predetermined schedule for the work to be performed.

- d. A small disadvantaged woman-owned business in Snyder, New York with which Calspan is presently spending approximately \$250,000 a year.

Arrangements have been made to reduce the payment schedule from forty (40) days to seven (7) days, and payments will be made on a weekly schedule. This process will relieve the firm from borrowing money from the bank to meet payroll and saves them a fourteen (14%) percent interest charge.

- e. Calspan also provides office space in house-services to the Upstate New York Minority Purchasing Council at its location in Buffalo, New York. This office space includes heat, light, janitorial and mail service at no cost.
- f. Calspan's Subcontracts Administrator has contacted a number of Historically Black Colleges and Universities in an attempt at identifying additional sources in support of the Company's Research and Development efforts. Visits have been arranged to many of these institutions, around the country, to further explore areas of possible cooperation.

Calspan ATC has supported the Buffalo-area Engineering Awareness for Minorities, BEAM, since its inception in 1983 and currently provides twelve (12) professional employees serving as board members and technical advisors. This non-profit organization was established to encourage secondary school minority students to pursue educational and career goals in the fields of engineering and science. For the school year ending 30 June 1989 over five (500) hundred students from the 5th grade through graduate level studies were being mentored by advisors provided by BEAM. Recently, Calspan ATC received an award for outstanding leadership from BEAM.

As further evidence of Calspan's corporate involvement with the small/small disadvantaged program, it should be noted that Calspan's Purchasing Manager is a member of the Board of Directors of the Buffalo Chapter of the Upstate New York Minority

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Purchasing Council, Inc. Calspan Corporation was the second charter-member company in the Council and contributed to the financial assistance in establishing this chapter. Calspan Corporation provides office space to the "Upstate Minority Purchasing Council" on a rent-free basis. This space provides necessary office space and a conference room which is used to conduct Council business. Calspan's Purchasing Manager has both chaired, and served on the organizational committee, for local annual Small Business Minority Business Trade Fairs sponsored by the Purchasing Management Association in conjunction with the Council. Another staff member has been of one of two Calspan representatives participating in U. S. Department of Commerce, Area Small Business Orientation Seminars which were established to acquaint small businesses in the proper procedures required to obtain work for the Government.

5. As noted in our basic subcontracting plan, Calspan Corporation provides adequate and timely consideration to the potentialities of small and small disadvantaged business concerns through its established procedures.
6. Calspan Corporation welcomes the opportunity to discuss subcontracting possibilities with representatives of small and small disadvantaged business firms as a means of expanding its source lists for the various complex items required in the performance of R&D programs.
7. Calspan will, in support of SDB's and in anticipation of subsequent awards, provide copies of the Statement of Work and applicable specifications, MIL specs, security requirements and applicable specifications. Calspan ATC technical personnel will be identified and contact points established for the purpose of answering questions and to provide technical assistance. As requested, FAR and other procurement regulations will be made available to SDB's. As has always been the case, procurement process will be available to assist where required.

It must be emphasized however, that Calspan is involved with many programs operating under security classifications and at times, may not be able to provide information to firms which do not have the appropriate security clearances.

As in the past, Calspan ATC will on a case-by-case basis, review the need, applicability and appropriateness for more advantageous payment terms to include if possible advance payments and/or short term payments to SDB's.

In summary, we note:

1. Calspan Corporation procurements from small businesses have historically been between 65% to 70% of all procurement activity.
2. Our awards to small disadvantaged businesses have significantly increased over the previous years -- a major accomplishment when you consider that the highly sophisticated nature of our research and development efforts are not easily supported by the average small disadvantaged business concern.

CALSPAN CORPORATION **Advanced Technology Center**

**Small Business and Small Disadvantaged Business
 Subcontracting Plan**

No. 91-07

Date 5 April 1991

Federal Agency: U.S. Air Force, Wright Patterson Air Force Base

Calspan Proposal No. 0050

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

1. Estimated Planned Subcontracts

a.

	Percentage Goals	Subcontract Dollars
Total Planned Subcontracts	100.0	4,071,681
To Small Business	18.4	745,931
To Small Disadvantaged Business	5.1	208,961
TOTAL	23.5	954,892
To Large Business	76.5	3,116,789

b. The principal items or services anticipated to be subcontracted under this plan are as follows:

Description of Item Required, including Specs. or Quals.	Anticipated Source	L/S/ or SDB	Anticipated Cost of Item
Console, Type C2	Hughes	LB	1,751,483
Support Personnel	Sarette	SDB	128,043
Circuit Board Wiring	Various	SDB	66,197
Construction Materials	Various	SB	90,371
RF Equipment	Various	SB	434,746

(Revised 2/91)

- c. To develop the small and small disadvantaged business procurement goals, Calspan has a procedure whereby discussions are held to determine the potential subcontracting opportunities after the first draft of the proposal cost estimate is prepared. Participants vary depending upon the nature of the program, but the Purchasing Manager, the SBLO, Contract Manager and Proposal Engineer are the regular attendees. Discussions were held among the following participants to ensure that proper information is included within the plan:

P.J. Calinski	-	Technical
A.B. Schmit	-	Contracts
B.T. Burtch	-	Pricing
R.J. Daley	-	Subcontracts

Since Calspan Corporation is a research, development and testing organization and does not generally engage in manufacturing, it does not have an established make or buy procedure. The problem is addressed separately and distinctly for each individual requirement as it occurs. Consequently, the question of make or buy is included in the initial discussion described above by the individuals concerned. There are always members of purchasing management in attendance at the make or buy meetings.

- d. Calspan has not included any costs related to indirect or overhead purchases obtained from small and small disadvantaged businesses, in this subcontracting plan goals.
- e. Some of the source references utilized:
- The Small Business Administration Procurement Automated Source System.
 - Current Edition of National Minority Business Director - "Try Us".
 - Department of Defense Small Business Directory distributed by DCMR, Boston, published by Cameron Station, Virginia.
 - Registry of Minority Firms published by the Small Business Administration.
 - Department of Defense Minority Business Directory from DCMR, Boston.
 - Small Disadvantaged Business Concerns Source bid compiled in-house.
 - DOD Deputy for Small Business, DCMAO, Buffalo.

- Upstate New York Regional Minority Purchasing Council, Inc., certified listing.
- Listing of Small Disadvantaged Businesses (SDBs) Offered Technical Assistance Services by Mesa Services International, Inc. provided by Office of Small and Disadvantaged Business Utilization.
- Firms listed in the 8(A) Business Development Program of the U. S. Small Business Administration.
- Department of Defense funded listing entitled "An Inventory of the Capabilities of the Historically Black Colleges and Universities and Other Minority Institutions (HBCUs/MIs)" prepared by The National Association for Equal Opportunity in Higher Education.

2. The Subcontracting Plan will be administered by:

Primary: Richard J. Daley, Purchasing Manager (716) 631-6768

Secondary: Theodore C. Donner, Subcontracts Administrator (716) 631-6795

4455 Genesee Street, Post Office Box 400, Buffalo, New York 14225

The primary Small Business Liaison Officer (SBLO) is also the Manager of the Purchasing Section. The secondary SBLO has a direct Reporting Line to Mr. Daley. The SBLO duties include keeping top management advised on a monthly basis of the small business subcontracting program, preparation and submittal of the required quarterly and semi-annual reports, conducting reviews with Government representatives and providing liaison and interface with the Purchasing Department on small and disadvantaged sources, procurements, monitoring performance against subcontract plans to evaluate compliance and initiate corrective action when necessary, maintenance of all internal records pertaining to the Small Business Program, and maintenance of contacts with all Government agencies regarding subcontracting activities at Calspan.

Additional duties of the SBLO include, but are not limited to, ensuring that goals are established for each subcontracting plan. Moreover, the SBLO also reviews each plan to ensure that goals are both realistic and achievable and that all elements of the plan are accurate, complete and current prior to submittal and throughout contract performance. The SBLO also ensures that the composite goals always contain consideration of the capabilities of Historically Black Colleges and Universities and other Minority Institutions. Furthermore, the SBLO represents Calspan at Federal, State and privately organized procurement conferences, workshops and trade fairs conducted locally, regionally and nationally.

As early as 1964 Calspan Corporation used a computerized system to monitor the various procurement actions identified as large, small, minority, women-owned, local, etc. businesses concerns. Subsequently, this system was adopted by other area concerns involved in Government contracting. A special summary printout of all actions of \$10,000 or more is a part of the system originally intended for responding to the old voluntary Small Business Utilization Program. We recently expanded the system to produce a printout of all purchases by contract by business concern category to accommodate the review and reporting requirements for individual subcontracting plans. The Small Business Liaison Officer is responsible for submission of required subcontracting reports, Standard Form 295 (Federal Agency Quarterly Summary Subcontracting Report) and Standard Form 294 (Federal Agency Individual Subcontracting Report), to the respective Government agencies including the Small Business Administration and DLA, DCMAO representatives in accordance with the instructions on these forms as required by FAR 19.704(A)(5).

3. Efforts

- (A) Calspan Corporation has developed a division-wide policy statement signed by the Senior Vice President and General Manager of Calspan Advanced Technology Center which acknowledges the company's contractual commitment to the Small Business Program. Responsibility for compliance rests with managers through the organization who are capable of implementing the policy including program managers, purchasing personnel, and item end users.
- (B) Calspan Corporation conducts formal training relative to SASDB subcontracting requirements training for all personnel involved in the acquisition cycle at least annually. Training is conducted more frequently for purchasing personnel and provides the context to disseminate data relative to actual achievements against subcontracting goals.
- (C) Calspan Corporation assists SASDB firms by arranging solicitations, response cycles, quantities, and delivery schedules to encourage SASDB participation in the subcontracting process to an extent consistent with efficient prime contract performance.
- (D) Calspan's Senior Management is apprised of achievements against subcontracting plans as well as the overall status of the Small Business Program at least annually.
- (E) Potential subcontractors are counseled directly on specific acquisitions and generally at Procurement Conferences and/or Trade Fairs in an effort to increase SASDB participation in the subcontracting process.
- (F) Financial and/or technical assistance is provided to both Small Business and Small Disadvantaged Business whenever necessary, practical, and consistent with efficient Prime Contract performance.

- (G) Calspan Corporation maintains an in-house purchasing system. As a part of this system each buyer has been instructed in the requirements of P.O. 95-507, as well as pertinent, additional requirements contained in P.L. 99-661, "National Defense Procurement Act of 1987" which establishes a five (5%) percent goal for participation in the U. S. Department of Defense procurement process for Small Disadvantaged Businesses (SDBs), Historically Black Colleges and Universities (HBCUs) and other Minority Institutions (MIs), P.L. 100-180, Section 806: "Requirement for Substantial Progress on Minority and Small Business Contract Awards", and P.L. 100-656, "Business Opportunity Development Reform Act of 1988". Further, continuous informal instructions are given to pertinent purchasing personnel for periodic updating on these, and any subsequent public laws enacted which concern procurement activities involving small and small disadvantaged businesses. Written documentation is mandated as part of every Calspan procurement in excess of \$250, showing the extent of competition among small and small disadvantaged vendors; the reasons for awarding to the successful bidder, and reasons as to why small and small disadvantaged business did or did not win the award, when such is the case.

4. Flow Down Requirements

Calspan Corporation agrees to include the clause in the contract entitled "Utilization of Small Business Concerns and Small Disadvantaged Concerns" (FAR 52.219-8), in all subcontracts that offer further subcontracting opportunities, and will require all subcontractors (except small business) who receive subcontracts in excess of \$500,000 (\$1,000,000 for construction work) to adopt a plan similar to the plan agreed to by Calspan.

5. Reports and Studies

Calspan Corporation agrees to submit additional periodic reports and cooperate in any studies or surveys as may be required by a federal agency or the Small Business Administration in order to determine the extent of compliance with the Subcontracting Plan submitted herein. Calspan will submit Standard Form (SF) 294 and 295 in accordance with instructions. In addition, Calspan agrees to ensure that subcontractors develop and submit subcontracting plans similar to the one prepared by Calspan and submit SF 294's to demonstrate the level of compliance with each plan.

6. Listing of Types of Records Calspan Corporation Maintains

- a. Small and disadvantaged business source lists, guides, and other data identifying small and small disadvantaged business vendors.
- b. Organizations contacted for small and disadvantaged business sources.
- c. On a contract-by-contract basis, records on all subcontract solicitations over \$10,000, indicating on each solicitation (i) whether small business was solicited and if not, why not; (ii) whether small disadvantaged business was

solicited and if not, why not; and (iii) reasons for the failure of responding small businesses to receive the subcontract award.

- d. Records to support such efforts as: (i) contacts with disadvantaged and small business trade associations; (ii) contacts with business development organizations; and (iii) attendance at small and disadvantaged business procurement conferences and trade fairs.
- e. Records to support internal activities to guide and encourage buyers such as: (i) workshops, seminars, training programs, etc.; and (ii) monitoring activities to evaluate compliance.
- f. On a contract-by-contract basis, records to support award data submitted to the Government to include name, address, and size status of subcontractor.
- g. On a contract-by-contract basis, a computer printout of the dollar amount of all awards made identifying small and small disadvantaged vendors.
- h. Buyer's checkoff sheets indicating number of small and disadvantaged business concerns solicited for each award.
- i. Individual small business subcontract plan files.
- j. Semi-annual individual status reports for each subcontract plan.
- k. Quarterly summary subcontracting reports for each federal agency.
- l. Small Business Administration letters of compliance for each small business subcontract plan.

In order to implement this plan in the most effective manner, Calspan Corporation has taken various positive actions and can demonstrate through prior examples that it is making a good faith effort to comply with the spirit and intent of P.L. 95-507, as well as P.L. 99-661, P.L. 100-180 and P.L. 100-656.

1. Calspan Corporation management is kept well informed and fully involved in the company program for utilization of small and small disadvantaged business concerns. At the direction of the General Manager, the SBLO has briefed the approximately forty (40) top managers of Calspan Corporation at one of their monthly staff meetings on the requirements of the various Public Laws cited above. Calspan Corporation maintains a company policy on Utilization of Small and Small Disadvantaged Business Concerns, identified as Procedure 604. (A copy of the procedure is available upon request.)
2. Calspan Corporation and its predecessor company participated in the original "volunteer" program of reporting to the Department of Defense and the Small Business Administration since the plan's inception, and currently continues to file the required reports. We have an annual review by Procurement Specialists from both DCMR and the Small Business Administration attesting to our ongoing good-

faith compliance with the regulations. Senior Management is kept informed on the program activities through a formal reporting system.

3. All buying personnel are kept informed and support the small and small disadvantaged business firms due to a requirement that every purchase over \$250 be documented accordingly. Informal meetings, occasional formal briefings and attendance at seminars keep the small business program highly visible.
4. Calspan Corporation has frequently offered special assistance to small and small disadvantaged businesses, beyond normal business procedures. Some examples are:
 - a. A unique small business concern has built ten (10) prototype Research Safety Vehicles (RSV) under a Calspan subcontract. Because of their size and limited credit capabilities when compared to the costs involved in the program, Calspan gave special consideration by making advanced payments to assist them in keeping the program moving. Further, our Technical Program Manager, Director of Material Services, Purchasing Manager, Subcontracts Administrator and our Small Business Liaison Officer each made at least one trip (some made several) to this subcontractor's facilities in another city, to provide expertise with various problems inherent in Government contracting since this was their first U. S. Government contract.
 - b. The Calspan Purchasing Manager was clearly instrumental in assisting a local minority female in establishing a secretarial service and obtaining a U. S. Government clearance for her employees. Since this business was initiated it has grown into a full service operation providing secretarial, engineering and technical support personnel. Several Government subcontractors in our area now avail themselves of services from this female-owned small disadvantaged entrepreneur, thus aiding the Government's program directly.
 - c. Calspan recently was awarded its first production contract, called the ALAD Program which is a military/chemical detector unit. The alarm is set off when the chemical hits a molded plastic disc and breaks a painted surface in the subtrack of the disc.

The application of the paint is a special process paint mixture of flakes and a special application of same.

This process is proprietary to Calspan.

A small business in Orchard Park, New York has been awarded a contract to mold the plastic disc and has been especially trained by Calspan's technical staff to apply the paint.

An award to a small business for the molded disc for production and options amounts to \$387,342 and of that amount \$193,890 is for the special painting.

If Calspan did not train this small firm on how to apply the special paint, the work would have been performed at Calspan.

Calspan is also advance paying on a predetermined schedule for the work to be performed.

- d. A small disadvantaged woman-owned business in Snyder, New York with which Calspan is presently spending approximately \$750,000 a year.

Arrangements have been made to reduce the payment schedule from forty (40) days to seven (7) days, and payments will be made on a weekly schedule. This process will relieve the firm from borrowing money from the bank to meet payroll and saves them a fourteen (14%) percent interest charge.

- e. Calspan was instrumental in obtaining a distributorship from a major large computer manufacturer for a small disadvantaged business company in Rochester, New York. This was considered a major accomplishment for this company.

- f. Calspan also provides office space in house-services to the Upstate New York Minority Purchasing Council at its location in Buffalo, New York. This office space includes heat, light, janitorial and mail service at no cost.

- g. Calspan's Purchasing Manager has contacted a number of Historically Black Colleges and Universities in an attempt at identifying additional sources in support of the Company's Research and Development efforts. Visits have been arranged to many of these institutions, around the country, to further explore areas of possible cooperation.

Calspan ATC has supported the Buffalo-area Engineering Awareness for Minorities, BEAM, since its inception in 1983 and currently provides twelve (12) professional employees serving as board members and technical advisors. This non-profit organization was established to encourage secondary school minority students to pursue educational and career goals in the fields of engineering and science. For the school year ending 30 June 1989 over five (500) hundred students from the 5th grade through graduate level studies were being mentored by advisors provided by BEAM. Recently, Calspan ATC received an award for outstanding leadership from BEAM.

As further evidence of Calspan's corporate involvement with the small/small disadvantaged program, it should be noted that Calspan's Purchasing Manager is a member of the Board of Directors of the Buffalo Chapter of the Upstate New York Minority Purchasing Council, Inc. Calspan Corporation was the second charter-member company in the Council and contributed to the financial assistance in establishing this chapter. Calspan Corporation provides office space to the "Upstate Minority Purchasing Council" on a rent-free basis. This space provides necessary office space and a conference room which is used to conduct Council business. Calspan's Purchasing Manager has both chaired, and served on the organizational committee, for local annual Small Business Minority Business Trade Fairs sponsored by the Purchasing Management Association in conjunction with the Council. Another staff member has been one of two Calspan representatives participating in U. S. Department of Commerce, Area Small Business Orientation Seminars which were established to acquaint small businesses in the proper procedures required to obtain work for the Government.

5. As noted in our basic subcontracting plan, Calspan Corporation provides adequate and timely consideration to the potentialities of small and small disadvantaged business concerns through its established procedures.
6. Calspan Corporation welcomes the opportunity to discuss subcontracting possibilities with representatives of small and small disadvantaged business firms as a means of expanding its source lists for the various complex items required in the performance of R&D programs.
7. Calspan will, in support of SDB's and in anticipation of subsequent awards, provide copies of the Statement of Work and applicable specifications, MIL specs, security requirements and applicable specifications. Calspan ATC technical personnel will be identified and contact points established for the purpose of answering questions and to provide technical assistance. As requested, FAR and other procurement regulations will be made available to SDB's. As has always been the case, procurement personnel will be available to assist where required.

It must be emphasized however, that Calspan is involved with many programs operating under security classifications and at times, may not be able to provide information to firms which do not have the appropriate security clearances.

As in the past, Calspan ATC will on a case-by-case basis, review the need, applicability and appropriateness for more advantageous payment terms including possible advance payments and/or short term payments to SDB's.

In summary, we note:

1. Calspan Corporation procurements from small businesses have historically been between 70% to 80% of all procurement activity.
2. Our awards to small disadvantaged businesses have significantly increased over the previous years -- a major accomplishment when you consider that the highly sophisticated nature of our research and development efforts are not easily supported by the average small disadvantaged business concern.

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CALSPAN CORPORATION Advanced Technology Center

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**Small Business and Small Disadvantaged Business
Subcontracting Plan**

No. 93-03

Date 2/22/93

Federal Agency: Department of the Air Force; Eglin A.F.B.

Calspan Proposal No. CLINs 0015 and 0016 (REDCAP Options A & B)

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

1. Estimated Planned Subcontracts

a.

	Percentage Goals	Subcontract Dollars
Total Planned Subcontracts	100.0	\$1,884,178
To Small Business	57.4	1,081,518
To Small Disadvantaged Business *	4.6	86,672
TOTAL	62.0	\$1,168,190
To Large Business	38.0	715,988

* This category also includes Historically Black Colleges and Universities and other Minority Institutions.

b. The principal items or services anticipated to be subcontracted under this plan are as follows:

Description of Item Required, including Specs. or Quals.	Anticipated Source	L/S/ or SDB	Anticipated Cost of Item
Computer Equipment and Maintenance	Sun Microsystems	L	\$411,855
Support Technicians	Sarrette	SDB	\$ 35,165
Computer Software	Verdix	S	\$ 81,048

c. To develop the small and small disadvantaged business procurement goals, Calspan has a procedure whereby discussions are held to determine the potential subcontracting opportunities after the first draft of the proposal cost estimate is prepared. Participants vary depending upon the nature of the program, but the Purchasing Manager, the SBLO, Contract Manager and Proposal Engineer are the regular attendees. Discussions were held among the following participants to ensure that proper information is included within the plan:

P. Calinski	-	Technical
A. Schmit	-	Contracts
M. Hilczmayer	-	Pricing
R. Daley	-	Subcontracts

Since Calspan Corporation is a research, development and testing organization and does not generally engage in manufacturing, it does not have an established make or buy procedure. The problem is addressed separately and distinctly for each individual requirement as it occurs. Consequently, the question of make or buy is included in the initial discussion described above by the individuals concerned. There are always members of purchasing management in attendance at the make or buy meetings.

d. Calspan has not included any costs related to indirect or overhead purchases obtained from small and small disadvantaged businesses, in this subcontracting plan goals.

e. Some of the source references utilized:

- The Small Business Administration Procurement Automated Source System.
- Current Edition of National Minority Business Director - "Try Us".
- Department of Defense Small Business Subcontracting Directory, distributed by the Directorate of Small and Disadvantaged Business Utilization, Office of the Secretary of Defense.
- U.S. Department of Transportation, Office of Small and Disadvantaged Business Utilization.
- Small Disadvantaged Business Concerns Source bid compiled in-house.
- DOD Deputy for Small Business, DCMAO, Buffalo.
- Upstate New York Regional Minority Purchasing Council, Inc., certified listing.

- Department of Defense listing of Small Business Specialists.
- Small Business Subcontracting Directory of the U.S. Small Business Administration Office of Procurement Assistance.
- Listing of Small Disadvantaged Businesses (SDBs) Offered Technical Assistance Services by Mesa Services International, Inc. provided by Office of Small and Disadvantaged Business Utilization.
- Firms listed in the 8(A) Business Development Program of the U. S. Small Business Administration.
- Department of Defense funded listing entitled "An Inventory of the Capabilities of the Historically Black Colleges and Universities and Other Minority Institutions (HBCUs/MIs)" prepared by The National Association for Equal Opportunity in Higher Education.
- U.S. Small Business Administration Directory of Traditional and Breakout Procurement Center Representatives and Technical Advisors.
- S.B.A. Commercial Marketing Representative.
- S.B.A. Minority Small Business and Capital Ownership Program, Development Program Representatives.
- Small Disadvantaged Business Participants in Supplier Search '90 and '91, sponsored by Western New York Defense Contractors.

2. The Subcontracting Plan will be administered by:

Primary: Richard J. Daley, Purchasing Manager (716) 631-6768

Secondary: Theodore C. Donner, Subcontracts Administrator (716) 631-6795

4455 Genesee Street, Post Office Box 400, Buffalo, New York 14225

The primary Small Business Liaison Officer (SBLO) is also the Manager of the Purchasing Section. The secondary SBLO has a direct Reporting Line to Mr. Daley. The SBLO duties include keeping top management advised on a monthly basis of the small business subcontracting program, preparation and submittal of the required quarterly and semi-annual reports, conducting reviews with Government representatives and providing liaison and interface with the Purchasing Department on small and disadvantaged sources, procurements, monitoring performance against subcontract plans to evaluate compliance and initiate corrective action when necessary, maintenance of all internal records pertaining to the Small Business Program, and maintenance of contacts with all Government agencies regarding subcontracting activities at Calspan.

Additional duties of the SBLO include, but are not limited to, ensuring that goals are established for each subcontracting plan. Moreover, the SBLO also reviews each plan to ensure that goals are both realistic and achievable and that all elements of the plan are accurate, complete and current prior to submittal and throughout contract performance. The SBLO also ensures that the composite goals always contain consideration of the capabilities of Historically Black Colleges and Universities and other Minority Institutions. Furthermore, the SBLO represents Calspan at Federal, State and privately organized procurement conferences, workshops and trade fairs conducted locally, regionally and nationally.

As early as 1964 Calspan Corporation used a computerized system to monitor the various procurement actions identified as large, small, minority, women-owned, local, etc. businesses concerns. Subsequently, this system was adopted by other area concerns involved in Government contracting. A special summary printout of all actions of \$10,000 or more is a part of the system originally intended for responding to the old voluntary Small Business Utilization Program. We recently expanded the system to produce a printout of all purchases by contract by business concern category to accommodate the review and reporting requirements for individual subcontracting plans. The Small Business Liaison Officer is responsible for submission of required subcontracting reports, Standard Form 295 (Federal Agency Quarterly Summary Subcontracting Report) and Standard Form 294 (Federal Agency Individual Subcontracting Report), to the respective Government agencies including the Small Business Administration and DLA, DCMAO representatives in accordance with the instructions on these forms as required by FAR 19.704(A)(5).

3. Efforts

- (A) Calspan Corporation has developed a division-wide policy statement signed by the Senior Vice President and General Manager of Calspan Advanced Technology Center which acknowledges the company's contractual commitment to the Small Business Program. Responsibility for compliance rests with managers through the organization who are capable of implementing the policy including program managers, contract administrators, purchasing personnel, and item end users.
- (B) Calspan Corporation conducts formal training relative to SASDB subcontracting requirements training for all personnel involved in the acquisition cycle at least annually. Training is conducted more frequently for purchasing personnel and provides the context to disseminate data relative to actual achievements against subcontracting goals.
- (C) Calspan Corporation assists SASDB firms by arranging solicitations, response cycles, quantities, and delivery schedules to encourage SASDB participation in the subcontracting process to an extent consistent with efficient prime contract performance.
- (D) Calspan's Senior Management is apprised of achievements against subcontracting plans as well as the overall status of the Small Business Program at least annually.

- (E) Potential subcontractors are counseled directly on specific acquisitions and generally at Procurement Conferences and/or Trade Fairs in an effort to increase SASDB participation in the subcontracting process.
- (F) Financial and/or technical assistance is provided to both Small Business and Small Disadvantaged Business whenever necessary, practical, and consistent with efficient Prime Contract performance.
- (G) Calspan Corporation maintains an in-house purchasing system, which is approved by the Department of Defense. As a part of this system each buyer has been instructed in the requirements of P.L. 95-507, as well as pertinent, additional requirements contained in P.L. 99-661, "National Defense Procurement Act of 1987" which establishes a five (5%) percent goal for participation in the U. S. Department of Defense procurement process for Small Disadvantaged Businesses (SDBs), Historically Black Colleges and Universities (HBCUs) and other Minority Institutions (MIs), P.L. 100-180, Section 806: "Requirement for Substantial Progress on Minority and Small Business Contract Awards", and P.L. 100-656, "Business Opportunity Development Reform Act of 1988". Further, continuous informal instructions are given to pertinent purchasing personnel for periodic updating on these, and any subsequent public laws enacted which concern procurement activities involving small and small disadvantaged businesses. Written documentation is mandated as part of every Calspan procurement in excess of \$250, showing the extent of competition among small and small disadvantaged vendors; the reasons for awarding to the successful bidder; and reasons as to why small and small disadvantaged business did or did not win the award, when such is the case.

4. Flow Down Requirements

Calspan Corporation agrees to include the clause in the contract entitled "Utilization of Small Business Concerns and Small Disadvantaged Concerns" (FAR 52.219-8), in all subcontracts that offer further subcontracting opportunities, and will require all subcontractors (except small business) who receive subcontracts in excess of \$500,000 (\$1,000,000 for construction work) to adopt a plan similar to the plan agreed to by Calspan.

5. Reports and Studies

Calspan Corporation agrees to submit additional periodic reports and cooperate in any studies or surveys as may be required by a federal agency or the Small Business Administration in order to determine the extent of compliance with the Subcontracting Plan submitted herein. Calspan will submit Standard Form (SF) 294 and 295 in accordance with instructions. In addition, Calspan agrees to ensure that subcontractors develop and submit subcontracting plans similar to the one prepared by Calspan and submit SF 294's to demonstrate the level of compliance with each plan.

6. Listing of Types of Records Calspan Corporation Maintains

- a. Small and disadvantaged business source lists, guides, and other data identifying small and small disadvantaged business vendors.
- b. Organizations contacted for small and disadvantaged business sources.
- c. On a contract-by-contract basis, records on all subcontract solicitations over \$10,000, indicating on each solicitation (i) whether small business was solicited and if not, why not; (ii) whether small disadvantaged business was solicited and if not, why not; and (iii) reasons for the failure of responding small businesses to receive the subcontract award.
- d. Records to support such efforts as: (i) contacts with disadvantaged and small business trade associations; (ii) contacts with business development organizations; and (iii) attendance at small and disadvantaged business procurement conferences and trade fairs.
- e. Records to support internal activities to guide and encourage buyers such as: (i) workshops, seminars, training programs, etc.; and (ii) monitoring activities to evaluate compliance.
- f. On a contract-by-contract basis, records to support award data submitted to the Government to include name, address, and size status of subcontractor.
- g. On a contract-by-contract basis, a computer printout of the dollar amount of all awards made identifying small and small disadvantaged vendors.
- h. Buyer's checkoff sheets indicating number of small and disadvantaged business concerns solicited for each award.
- i. Individual small business subcontract plan files.
- j. Semi-annual individual status reports for each subcontract plan.
- k. Quarterly summary subcontracting reports for each federal agency.
- l. Small Business Administration letters of compliance for each small business subcontract plan.

In order to implement this plan in the most effective manner, Calspan Corporation has taken various positive actions and can demonstrate through prior examples that it is making a good faith effort to comply with the spirit and intent of P.L. 95-507, as well as P.L. 99-661, P.L. 100-180 and P.L. 100-656.

1. Calspan Corporation management is kept well informed and fully involved in the company program for utilization of small and small disadvantaged business concerns. At the direction of the General Manager, the SBLO has briefed the approximately forty (40) top managers of Calspan Corporation at one of their monthly staff meetings on the requirements of the various Public Laws cited above. Calspan Corporation maintains a company policy on Utilization of Small and Small

Disadvantaged Business Concerns, identified as Procedure 604. (A copy of the procedure is available upon request.)

2. Calspan Corporation and its predecessor company participated in the original "volunteer" program of reporting to the Department of Defense and the Small Business Administration since the plan's inception, and currently continues to file the required reports. We have an annual review by Procurement Specialists from both DCMR and the Small Business Administration attesting to our ongoing good-faith compliance with the regulations. Senior Management is kept informed on the program activities through a formal reporting system.
3. All buying personnel are kept informed and support the small and small disadvantaged business firms due to a requirement that every purchase over \$250 be documented accordingly. Informal meetings, occasional formal briefings and attendance at seminars keep the small business program highly visible.
4. Calspan Corporation has frequently offered special assistance to small and small disadvantaged businesses, beyond normal business procedures. Some examples are:
 - a. A unique small business concern has built ten (10) prototype Research Safety Vehicles (RSV) under a Calspan subcontract. Because of their size and limited credit capabilities when compared to the costs involved in the program, Calspan gave special consideration by making advanced payments to assist them in keeping the program moving. Further, our Technical Program Manager, Director of Material Services, Purchasing Manager, Subcontracts Administrator and our Small Business Liaison Officer each made at least one trip (some made several) to this subcontractor's facilities in another city, to provide expertise with various problems inherent in Government contracting since this was their first U. S. Government contract.
 - b. The Calspan Purchasing Manager was clearly instrumental in assisting a local minority female in establishing a secretarial service and obtaining a U. S. Government clearance for her employees. Since this business was initiated it has grown into a full service operation providing secretarial, engineering and technical support personnel. Several Government subcontractors in our area now avail themselves of services from this female-owned small disadvantaged entrepreneur, thus aiding the Government's program directly.
 - c. Calspan recently was awarded its first production contract, called the ALAD Program which is a military/chemical detector unit. The alarm is set off when the chemical hits a molded plastic disc and breaks a painted surface in the subtrack of the disc.

The application of the paint is a special process paint mixture of flakes and a special application of same.

This process is proprietary to Calspan.

A small business in Orchard Park, New York has been awarded a contract to mold the plastic disc and has been especially trained by Calspan's technical staff to apply the paint.

An award to a small business for the molded disc for production and options amounts to \$387,342 and of that amount \$193,890 is for the special painting.

If Calspan did not train this small firm on how to apply the special paint, the work would have been performed at Calspan.

Calspan is also advance paying on a predetermined schedule for the work to be performed.

- d. A small disadvantaged woman-owned business in Snyder, New York with which Calspan is presently spending approximately \$750,000 a year.

Arrangements have been made to reduce the payment schedule from forty (40) days to seven (7) days, and payments will be made on a weekly schedule. This process will relieve the firm from borrowing money from the bank to meet payroll and saves them a fourteen (14%) percent interest charge.

- e. Calspan was instrumental in obtaining a distributorship from a major large computer manufacturer for a small disadvantaged business company in Rochester, New York. This was considered a major accomplishment for this company.
- f. Calspan also provides office space in house-services to the Upstate New York Minority Purchasing Council at its location in Buffalo, New York. This office space includes heat, light, janitorial and mail service at no cost.
- g. Calspan's Purchasing Manager has contacted a number of Historically Black Colleges and Universities in an attempt at identifying additional sources in support of the Company's Research and Development efforts. Visits have been arranged to many of these institutions, around the country, to further explore areas of possible cooperation.

Calspan ATC has supported the Buffalo-area Engineering Awareness for Minorities, BEAM, since its inception in 1983 and currently provides twelve (12) professional employees serving as board members and technical advisors. This non-profit organization was established to encourage secondary school minority students to pursue educational and career goals in the fields of engineering and science. For the school year ending 30 June 1989 over five (500)

hundred students from the 5th grade through graduate level studies were being mentored by advisors provided by BEAM. Recently, Calspan ATC received an award for outstanding leadership from BEAM.

As further evidence of Calspan's corporate involvement with the small/small disadvantaged program, it should be noted that:

- 1) Calspan's Purchasing Manager is a member of the Board of Directors of the Buffalo Chapter of the Upstate New York Minority Purchasing Council, Inc. Calspan Corporation was the second charter-member company in the Council and contributed to the financial assistance in establishing this chapter. Calspan Corporation also provides office space to the "Upstate Minority Purchasing Council" on a rent-free basis.
- 2) Calspan's Purchasing Manager has both chaired, and served on the organizational committee, for local annual Small Business Minority Business Trade Fairs sponsored by the Purchasing Management Association in conjunction with the Council. Another staff member has been one of two Calspan representatives participating in U. S. Department of Commerce, Area Small Business Orientation Seminars which were established to acquaint small businesses in the proper procedures required to obtain work for the Government.
- 3) Calspan in 1991 was selected Corporation of the Year by the Upstate New York Regional Minority Purchasing Council.
- 4) Calspan was named in 1992 Contractor of the Year for the Western and Central New York Region by the U.S. Department of Defense, for its consistent compliance with the Department of Defense's Small Disadvantaged Business Program.
5. As noted in our basic subcontracting plan, Calspan Corporation provides adequate and timely consideration to the potentialities of small and small disadvantaged business concerns through its established procedures.
6. Calspan Corporation welcomes the opportunity to discuss subcontracting possibilities with representatives of small and small disadvantaged business firms as a means of expanding its source lists for the various complex items required in the performance of R&D programs.
7. Calspan will, in support of SDB's and in anticipation of subsequent awards, provide copies of the Statement of Work and applicable specifications, MIL specs, security requirements and applicable specifications. Calspan ATC technical personnel will be identified and contact points established for the purpose of answering questions and to provide technical assistance. As requested, FAR and other procurement regulations will be made available to SDB's. As has always been the case, procurement personnel will be available to assist where required.

It must be emphasized however, that Calspan is involved with many programs operating under security classifications and at times, may not be able to provide information to firms which do not have the appropriate security clearances.

As in the past, Calspan ATC will on a case-by-case basis, review the need, applicability and appropriateness for more advantageous payment terms including possible advance payments and/or short term payments to SDB's.

In summary, we note:

1. Calspan Corporation procurements from small businesses have historically been above 70% of all its procurement activity.
2. Our awards to small disadvantaged businesses have consistently been above the DoD Goal of 5% - a major accomplishment when you consider that the highly sophisticated nature of our research and development efforts are not easily supported by the average small disadvantaged business concern.

CALSPAN CORPORATIONAdvanced Technology Center**Small Business and Small Disadvantaged Business
Subcontracting Plan**No. 94-05Date 11 May 1994Federal Agency: A.F. Department Test Center, Eglin Air Force BaseCalspan Proposal No. Proposal 6/REDCAP Option C

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

1. Estimated Planned Subcontracts

a.

	Percentage Goals	Subcontract Dollars
Total Planned Subcontracts	100.0	\$1,330,397.00
To Small Business	73.1	973,120.00
To Small Disadvantaged Business *	5.1	67,318.00
TOTAL	78.2	\$1,040,438.00
To Large Business	21.8	289,959.00

* This category also includes Historically Black Colleges and Universities and other Minority Institutions.

b. The principal items or services anticipated to be subcontracted under this plan are as follows:

Description of Item Required including Specs. or Quals.	Anticipated Source	L/S/ or SDB	Anticipated Cost of Item
Computer Software, License, Support etc.	Verdix	S	\$101,278.00
Temporary Support Personnel	Sarette	SDB	\$28,975.00
Electronic Components	Arrow Schweber Electronics	L	\$45,911.00

- c. To develop the small and small disadvantaged business procurement goals, Calspan has a procedure whereby discussions are held to determine the potential subcontracting opportunities after the first draft of the proposal cost estimate is prepared. Participants vary depending upon the nature of the program, but the Purchasing Manager, the SBLO, Contract Manager and Proposal Engineer are the regular attendees. Discussions were held among the following participants to ensure that proper information is included within the plan:

P.J. Calinski	-	Technical
S.R. Schock	-	Contracts
B.T. Burtch	-	Pricing
R.J. Daley	-	Subcontracts

Calspan Corporation is primarily a research, development, and testing organization that engages in selected special purpose manufacturing, as required to satisfy the contractual requirements of its Customers. As such, our make or buy decisions are addressed on a case by case basis for each requirement as it arises, and are included in the initial discussions described above. Members of Purchasing Management always participate in the make or buy decisions, along with appropriate technical and support staff, as may be necessary.

- d. Calspan has not included any costs related to indirect or overhead purchases obtained from small and small disadvantaged businesses, in this subcontracting plan goals.
- e. Some of the source references utilized:
- The Small Business Administration Procurement Automated Source System.
 - National Minority Business Directory - "Try Us".
 - Department of Defense Small Business Subcontracting Directory, distributed by the Directorate of Small and Disadvantaged Business Utilization, Office of the Secretary of Defense.
 - U.S. Department of Transportation, Office of Small and Disadvantaged Business Utilization.
 - Small Disadvantaged Business Concerns Source bid compiled in-house.
 - DOD Deputy for Small Business, DCMAO, Syracuse.
 - Upstate New York Regional Minority Purchasing Council, Inc., certified listing.
 - Area Trends in Employment and Unemployment from U.S. Department of Labor.

- Department of Defense listing of Small Business Specialists.
- Small Business Subcontracting Directory of the U.S. Small Business Administration Office of Procurement Assistance.
- Listing of Small Disadvantaged Businesses (SDBs) Offered Technical Assistance Services by Mesa Services International, Inc. provided by Office of Small and Disadvantaged Business Utilization.
- Firms listed in the 8(A) Business Development Program of the U. S. Small Business Administration.
- Department of Defense funded listing entitled "An Inventory of the Capabilities of the Historically Black Colleges and Universities and Other Minority Institutions (HBCUs/MIs)" prepared by The National Association for Equal Opportunity in Higher Education.
- U.S. Small Business Administration Directory of Traditional and Breakout Procurement Center Representatives and Technical Advisors.
- S.B.A. Commercial Marketing Representative.
- S.B.A. Minority Small Business and Capital Ownership Program, Development Program Representatives.
- Small Disadvantaged Business Participants in Supplier Search '90 and '91, sponsored by Western New York Defense Contractors.

2. The Subcontracting Plan will be administered by:

Primary: Richard J. Daley, Purchasing Manager (716) 631-6768

Secondary: Theodore C. Donner, Subcontracts Administrator (716) 631-6795

4455 Genesee Street, Post Office Box 400, Buffalo, New York 14225

The primary Small Business Liaison Officer (SBLO) is also the Manager of the Purchasing Section. The secondary SBLO has a direct Reporting Line to Mr. Daley. The SBLO duties include keeping top management advised on a monthly basis of the small business subcontracting program, preparation and submittal of the required quarterly and semi-annual reports, conducting reviews with Government representatives and providing liaison and interface with the Purchasing Department on small and disadvantaged sources, procurements, monitoring performance against subcontract plans to evaluate compliance and initiate corrective action when necessary, maintenance of all internal records pertaining to the Small Business Program, and maintenance of contacts with all Government agencies regarding subcontracting activities at Calspan.

Additional duties of the SBLO include, but are not limited to, ensuring that goals are established for each subcontracting plan. Moreover, the SBLO also reviews each plan to ensure that goals are both realistic and achievable and that all elements of the plan are accurate, complete and current prior to submittal and throughout contract performance. The SBLO also ensures that the composite goals always contain consideration of the capabilities

of Historically Black Colleges and Universities and other Minority Institutions. Furthermore, the SBLO represents Calspan at Federal, State and privately organized procurement conferences, workshops and trade fairs conducted locally, regionally and nationally.

As early as 1964 Calspan Corporation used a computerized system to monitor the various procurement actions identified as large, small, minority, women-owned, local, etc. businesses concerns. Subsequently, this system was adopted by other area concerns involved in Government contracting. A special summary printout of all actions of \$10,000 or more is a part of the system originally intended for responding to the old voluntary Small Business Utilization Program. We recently expanded the system to produce a printout of all purchases by contract by business concern category to accommodate the review and reporting requirements for individual subcontracting plans. The Small Business Liaison Officer is responsible for submission of required subcontracting reports, Standard Form 295 (Federal Agency Quarterly Summary Subcontracting Report) and Standard Form 294 (Federal Agency Individual Subcontracting Report), to the respective Government agencies including the Small Business Administration and DLA, DCMAO representatives in accordance with the instructions on these forms as required by FAR 19.704(A)(5).

3. Efforts

- (A) Calspan Corporation has developed a division-wide policy statement signed by the Senior Vice President and General Manager of Calspan Advanced Technology Center which acknowledges the company's contractual commitment to the Small Business Program. Responsibility for compliance rests with managers through the organization who are capable of implementing the policy including program managers, contract administrators, purchasing personnel, and item end users.
- (B) Calspan Corporation conducts formal training relative to SASDB subcontracting requirements training for all personnel involved in the acquisition cycle at least annually. Training is conducted more frequently for purchasing personnel and provides the context to disseminate data relative to actual achievements against subcontracting goals.
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- l. Small Business Administration letters of compliance for each small business subcontract plan.
- m. Utilization of businesses located in Labor Surplus Areas.

In order to implement this plan in the most effective manner, Calspan Corporation has taken various positive actions and can demonstrate through prior examples that it is making a good faith effort to comply with the spirit and intent of P.L. 95-507, as well as P.L. 99-661, P.L. 100-180 and P.L. 100-656.

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- e. Calspan also provides office space in house-services to the Upstate New York Minority Purchasing Council at its location in Buffalo, New York. This office space includes heat, light, janitorial and mail service at no cost.
- f. Calspan provides office space, at one of its offsite locations, to both small and small disadvantaged businesses at below market rental rates.
- g. Calspan's Purchasing Manager has contacted a number of Historically Black Colleges and Universities in an attempt at identifying additional sources in support of the Company's Research and Development efforts. Visits have been arranged to many of these institutions, around the country, to further explore areas of possible cooperation.

As further evidence of Calspan's corporate involvement with the small/small disadvantaged program, it should be noted that:

- 1) Calspan's Purchasing Manager is a member of the Board of Directors of the Buffalo Chapter of the Upstate New York Minority Purchasing Council, Inc. Calspan Corporation was the second charter-member company in the Council and contributed to the financial assistance in establishing this chapter. Calspan Corporation also provides office space to the "Upstate Minority Purchasing Council" on a rent-free basis.
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- 3) In 1991 and 1993, Calspan was selected Corporation of the Year by the Upstate New York Regional Minority Purchasing Council.
- 4) In 1993 Calspan was named Contractor of the Year for the Western and Central New York Region by the U.S. Department of Defense, for its consistent compliance with the Department of Defense's Small Disadvantaged Business Program.
- 5) For 1993, Calspan received formal recognition from DCMAO, Syracuse, for again surpassing the 5% Goal for Minority Supplier Utilization.

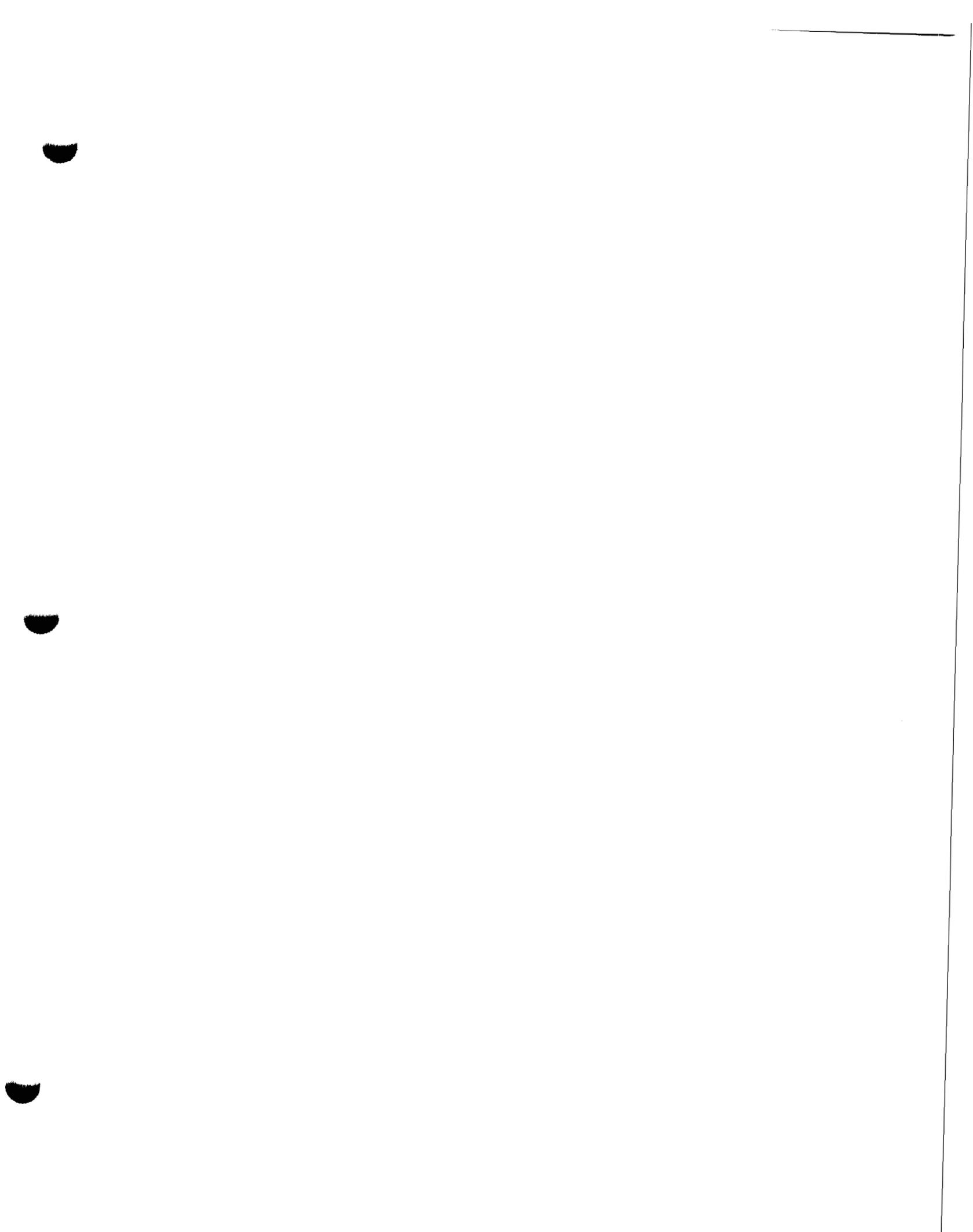
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ATCH 9 PAGE 1 of 5

STATEMENT OF WORK
SUPPLEMENT 1
RESTRUCTURED REDCAP UPGRADE PROGRAM

1 Feb 91

1.0 Background: Paragraph 1. of the original Statement of Work (SOW) (Revision E) is applicable.

2.0 Applicable/Reference Documents: The documents listed in the original SOW are applicable to the extent specified herein. In the event that any of these documents contradict requirements presented herein, this SOW shall govern.

3.0 Requirements: The requirements of the original statement of work shall be met only to the extent itemized herein. All work shall be expandable to permit addition of capabilities to satisfy all requirements of the original statement of work.

3.0.1. Avionics/Electronic Integrity Program (AVIP)

3.0.1.1 For options O, A, B, and C, AVIP shall be tailored further by the contractor. The contractor shall limit the effort to that needed to support the satisfaction of the availability requirements through good design practices. No further reliability predictions are required except in cases where there is significant deviation from the AVIP procedures produced to date.

3.0.1.2 Options D, E, and F: For work done under Options D, E, and F, the full AVIP of the basic SOW shall apply.

3.0.2 Program Parts Selection List (PPSL): The PPSL requirements of the previous Statement of Work shall apply.

3.0.3 Facility Modifications: The contractor shall perform those facility modifications required to support each option exercised. The full facility modification is described in paragraph 3.4 of the original SOW. Specifically excluded from the requirements of Options O through F is the large (ALQ-161) screen room. The full requirements of paragraph 3.5 of the original SOW shall apply.

3.0.4 Configuration and Data Management: The provisions of paragraphs 3.7 and 3.8 of the original SOW shall apply with the following clarification: Paragraph 3.7.2.4, Deferred baselines - Until such time as formal baselines are contractually established, changes to the specifications are subject to the informal configuration control provisions of paragraph 3.7.3.3.

3.0.5 The contractor shall perform software quality assurance IAW the REDCAP Software Quality Program Plan.

3.0.6 Government Furnished Equipment (GFE) and Contractor Furnished Equipment (CFE): Paragraph 3.10 of the original SOW applies in full.

3.0.7 Cost/Schedule Control Systems: The full Cost/Schedule Control Systems requirements of paragraph 3.11 of the original SOW shall apply.

3.0.8 Program Management: The full program management requirements of paragraph 3.12 of the original SOW shall apply as applicable to each option.

3.0.9 Program/Design Reviews and Audits: Program reviews shall be conducted as described in paragraph 3.13 of the original SOW with the exception of Formal Qualification Review (FQR) as applicable to each option.

3.0.10 Test and Evaluation: The requirements of paragraph 3.15 of the original statement of work shall apply with the following exceptions: formal testing at the Segment/Subsegment levels (paragraph 3.15.4) is no longer required; however, the Government reserves the right to verify that segment/subsegment requirements are met as part of formal system testing. Also, Hardware Configuration Item (HWCI) Acceptance tests and Acceptance Test Procedures (paragraph 3.15.2) are no longer required. The Government will be invited to witness CI FQT testing. Informal Test Readiness Reviews will be conducted prior to the start of FQT. FQT plans, procedures and test reports shall be submitted to the Government for information only.

3.0.11 Validation: The contractor shall perform Simulation Validation IAW paragraph 3.15.7.1 of the original SOW as applicable to each option.

3.1 Option 0 - Basic contract modification

3.1.1 SUAWACS BM/C3

3.1.1.1 The contractor shall complete all SUAWACS battle management and weapons control operator console capabilities required by the REDCAP System Specifications and the BM/C3 Segment Specifications.

3.1.1.2 The contractor shall provide all airborne interceptor capabilities specified in the System Specification and the BM/C3 Segment Specification.

3.1.1.3 The contractor shall provide the transmit RF environment for the SSDL and UDL data links required by the System Specification and the BM/C3 Segment Specification. Provisions shall be made to allow the addition of receivers to these links in the future. All specified synthetic link capabilities shall be provided.

3.1.1.4 The capability to transfer data into and out of the Sensitive Compartmented Information Facility (SCIF) without security violation as stated in the System Specification and the BM/C3 Segment Specification shall be provided.

3.1.1.5 The SUAWACS radar capability shall be retained.

3.1.2 Architecture (ARCH)

3.1.2.1 The contractor shall provide hardware and software that is fully expandable to meet the full computer/facility architecture requirements of the System Specification and the ARCH Segment Specification. The contractor shall provide Facility Master Controller (FMC) hardware and software that provides the support necessary for the capabilities specified in paragraph 3.1.1. A minimal subset of Scenario Preparation (SP), Test Analysis (TA) and FMC Support (FMCS) software is required to support this option.

3.1.2.2 The contractor shall provide a Test Conductor Station (TCS) to support the capability in paragraph 3.1.1. This system shall be expandable to support the capabilities in the System Specification and the ARCH Segment Specification.

3.1.2.3 The contractor shall configure the current intercom hardware to support this option (Option 0).

3.1.3 NET

3.1.3.1 The contractor shall complete the purchase and acceptance testing of the EW, HF and controller console systems built by Hughes.

3.1.3.2 The contractor shall suspend further developments of the IADS NET where such developments are unique to the IADS NET. For any development which is needed to meet the requirements in paragraph 3.1.1, the full capability of the reusable item may be delivered.

3.1.4 EW/GCI: The contractor shall complete all documentation and resolve all outstanding action items associated with the EW/GCI Preliminary Design Review (PDR).

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3.1.5 FACILITY: The contractor shall complete those facility requirements necessary to support this option (Option 0) and the continued operation and maintenance of the existing REDCAP. The contractor shall provide for facility expansion to support the full REDCAP upgrade as specified in paragraphs 3.4 and 3.5 of revision E of the REDCAP Statement of Work. Space shall be provided for the large (ALQ-161) screen room as specified in paragraph 3.5.2 of revision E of the REDCAP Statement of Work.

3.2 Option A: This option may be exercised concurrent with Option 0 or at any time thereafter.

3.2.1 NET: The contractor shall provide all capabilities associated with the ground IADS as specified in the System Specification and the IADS NET Segment Specification, including the development of ground and airborne sensor Generated Real-Time Interactive Database (GRID) models, commander consoles and controller consoles. Specifically excluded are EW and HF consoles, Tracker Pair Stations and radar integration.

3.2.2 Additional Architecture: The contractor shall expand the Architecture capabilities associated with the System Specification and the ARCH Segment Specification to support the IADS NET capabilities described in paragraph 3.2.1 and Option 0. This expansion shall include the fabrication and configuration of additional intercommunication stations to support the NET. This option specifically excludes the FDDI LAN, Voice Switch (VS) and graphical interfaces.

3.3 Option B: This option may be exercised concurrent with Option A or at any time thereafter.

3.3.1 The contractor shall provide the full Architecture capabilities as specified in the System Specification and the ARCH Segment Specification with the exception of the Radar Switch (RS) software. The contractor shall also provide a single link to other EC test facilities as described in "Real-Time Remote Interface Study" (dated 26 Oct 90). This link shall be capable of supporting interface with the Air Combat Environment Test and Evaluation Facility (ACETEF), and to the extent possible ECITF and EMTE.

3.3.2 The contractor shall provide the Pulse Environment Generator capabilities as specified in the System Specification and the EW/GCI Segment Specification.

3.4 Option C: This option may be exercised concurrent with Option B or at any time thereafter.

3.4.1 The contractor shall develop and fabricate the hardware and software elements necessary to integrate the previously existing radars with the upgraded REDCAP as well as those elements which are common to the previously existing radars and radar simulation types A, B1, B2 and C. The contractor shall integrate the new HF and EW consoles with the REDCAP including the previously existing radars. The contractor shall also provide the RS capability as specified in the System Specification, the EW/GCI Segment Specification, and the Architecture Segment Specification.

3.4.2 The contractor shall provide the full IADS NET capability as specified in the System Specification and the IADS NET Segment Specification.

3.5 Option D: This option may be exercised concurrent with or any time after Option O.

The contractor shall provide the full SUAWACS BMC3 capability as described in the System Specification and the BM/C3 Segment Specification as well as hardware and software modifications to provide the new tactical data link.

3.6 Option E: This option may be exercised concurrent with or any time after Option C.

The contractor shall design, fabricate and integrate radar simulation types A and B1 as described in the System Specification and the EW/GCI Segment Specification with the REDCAP facility.

3.7 Option F: This option may be exercised concurrent with or any time after Option E.

The contractor shall design, fabricate and integrate radar simulation types B2 and C as described in the System Specification and the EW/GCI Segment Specification with the REDCAP facility. In addition, the contractor shall perform design modification of simulation types B1, B2 and C to accommodate the naval radars types specified in the classified supplement to this SOW.

**Contractor Data Management System
Contract Data Requirements List
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Program ID: RWB

Contract No.: F33657-88-C-2093
Contractor: Calspan

System Item Name: RED

<u>Seq. No.</u>	<u>OPR</u>	<u>DID No./Title/Subtitle</u>	<u>SOW Paragraph</u>
1001	46TW/TSWW	DI-A-3023/T Contract Work Breakdown Structure Index/Dictionary	SOW Para 3.12.2
1002	46TW/TSWW	DI-A-3024A/T Presentation Material	See Blk 16
1003	46TW/TSWW	DI-A-3027A Data Accession List/Internal Data	SOW Para 3.8.2.2
1004	AFDTC/PKZ	DI-A-3028B Abstract of New Technology (ANT)	Patent Rights Clause
1005	46TW/TSWW	DI-A-7088 Conference Agenda	See Blk 16
1006	46TW/TSWW	DI-A-7089 Conference Minutes	See Blk 16
1007	46TW/TSWW	DI-CMAN-80405/T Configuration Management Plan (CMP)	SOW Para 3.7.1
1008	46TW/TSWW	DI-E-3127A Advance Change Study Notice (ACSN)	SOW Para 3.7.3.1
1009	46TW/TSWW	DI-CMAN-80639/T Engineering Change Proposal	SOW Para 3.7.3.1
1010	46TW/TSWW	DI-CMAN-80640 Request for Deviation	SOW Para 3.7.3.2
1011	46TW/TSWW	DI-E-7144 Simulator System Engineering Management Plan	SOW Para 3.12.1.3, 3.12.5
1012	46TW/TSWW	DI-F-6000C/T Cost Performance Report (CPR)	SOW Para 3.11.1, 3.11.1.2
1013	46TW/TSWW	DI-F-6004B/T Contract Funds Status Report (CFSR)	SOW Para 3.11.1
1014	46TW/TSWW	DI-F-6007/T Functional Cost Hour Report (DD Form 1921-1)	SOW 3.11.1

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Contract Data Requirements List
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Program ID: RWB

Contract No.: F33657-88-C-2093
Contractor: Calspan

System Item Name: RED

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1015	46TW/TSWW	DI-GDRQ-80435 Avionics Integrity Master Plan (AIMP)	SOW Para 3.9.1.1
1016	46TW/TSWW	DI-GDRQ-80436 Avionic/Electronic Integrity Program Technical Report (AVIP-TR)	SOW Para 3.9.1.3
1017	46TW/TSWW	DI-MCCR-80030A Software Development Plan	SOW Para 3.1, 3.2, 3.3, 3.7.1
1019	46TW/TSWW	DI-MISC-80167A/T Contract Data Status and Schedule Report Data Tracking	SOW Para 3.8.1d
1020	46TW/TSWW	DI-MISC-80167A/T Contract Data Status and Schedule Report Contract Milestones Report	SOW Para 3.12.3, 3.13.1
1021	46TW/TSWW	DI-QCIC-80572 Software Quality Program Plan	SOW Para 3.1, 3.2, 3.3, 3.9.3
1022	46TW/TSWW	DI-F-30207/T Input Data for Parametric Cost Models	SOW Para 3.12.7
1023	46TW/TSWW	DI-MISC-80839 System Security Management Plan (SSMP)	SOW Para 3.12.6
1024	46TW/TSWW	DI-MISC-80841/T Security Vulnerability Analysis	SOW Para 3.12.6
1025	46TW/TSWW	DI-CMAN-80644 Engineering Change Proposal (Short Form)	SOW Para 3.7.3.1
1026	46TW/TSWW	DI-CMAN-80641 Request for Waiver	SOW Para 3.7.3.2

Updated 11/30/94

Attachment 10 Addresses
REDCAP Upgrades
Contract F33657-88-C-2093

<u>New Code</u>	<u>Old Code</u>	<u>Address</u>
46TW/TSWW	3246TW/TFP-1	Air Force Development Test Center 401 W. Choctawhatchee Avenue, Suite 265 Eglin Air Force Base, FL 32542-5724
AFDTC/PKZ	AFDTC/PKR	Air Force Development Test Center 205 West D Avenue, Suite 428 Eglin Air Force Base, FL 32542-6864
46TW/TSTB		Attn: Ms. Linda Kindurys 207 W D Avenue, Suite 125 Eglin Air Force Base, FL 32542-6858
46TW/TSTD	3246TW/TFS	207 W D Avenue, Suite 125 Eglin Air Force Base, FL 32542-6864
DAO-DE EG/FS	AFDTC/FMCI	205 W D Avenue, Suite 125 Eglin Air Force Base, FL 32542-6861
AFDTC/AS	AFDTC/SP	101 W D Avenue, Suite 14 Eglin Air Force Base, FL 32542-5491
AFDTC/IN	AFDTC/IN	101 W D Avenue, Suite 102 Eglin Air Force Base, FL 32542-6830
NAIC/TANV	FTD/TTIEV	National Air Intelligence Center 4115 Hebble Creek Road, Suite 28 Wright-Patterson Air Force Base, OH 45433-5632
WL/POPT	WL/POPT	Attn: Richard B. Neff WL/POPT Wright-Patterson Air Force Base, OH 45433-6563
412TW/TSDE	6510TW/TSDE	Air Force Flight Test Center 195 East Popson Avenue Edwards Air Force Base, CA 93524-6842
46TW/OL-AG	AFDTC/OL	General Dynamics Fort Worth Division Mail Zone 2162 P.O. Box 371 Fort Worth, TX 76101-0371
General Dynamics	General Dynamics	Attn: Mr. Andrew Spear, Mail Zone 1343 General Dynamics Fort Worth Division P.O. Box 748 Fort Worth, TX 76101-0748

<u>New Code</u>	<u>Old Code</u>	<u>Address</u>
DCMO-GSKOB	ACO-DCMO	Defense Logistics Agency Defense Contract Management Operations 1103 Federal Building 111 West Huron Street Buffalo, NY 14202-2392
DCMO-GSKT		Attn: Mr. Richard McCarthy Defense Contract Management Operations 1100 Federal Building 111 West Huron Street Buffalo, NY 14202-2392
DCAA-Buffalo	DCAA-Buffalo	Attn: Mr. Duane M. Kocher Defense Contract Audit Agency Buffalo Branch Office 5360 Genesee Street, P.O. Box 9 Bowmansville, NY 14026-1035
DCAA-Calspan Resident Auditor	DCAA-Calspan Resident Auditor	Attn: Mr. John E. Wessels Calspan Resident DCAA Auditor Defense Contract Audit Agency 4455 Genesee Street Buffalo, NY 14225
Calspan	Calspan	Calspan Corporation REDCAP Simulator Facility 4455 Genesee Street Buffalo, NY 14225

CONTRACT: F33657-88-C-2093

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SUMMARY LEVEL WORK BREAKDOWN STRUCTURE
FOR
REDCAP UPGRADE PROGRAM

23 JANUARY 1991

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 - 1.4.4 REARRANGEMENT
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 - 1.4.6 SCIF SOW CHANGES
 - 1.4.7 REDCAP DEINSTALLATION
 - 1.4.8 SHIELD ROOMS
 - 1.4.9 FACILITY MANAGEMENT
- 1.5 SIE
 - 1.5.1 ICWG
 - 1.5.2 ACETEF LINK
 - 1.5.3 SIS
 - 1.5.4 SIE MEETING CDRLs
 - 1.5.5 SIE REPORTING CDRLs
 - 1.5.6 SIE PROJECT MANAGEMENT
- 1.6 SYSTEM TEST AND EVALUATIONS
 - 1.6.1 SIMVAL
 - 1.6.2 FINAL SYSTEM ACCEPTANCE
- 1.7 SYSTEMS ENGINEERING/PROGRAM MANAGEMENT
 - 1.7.1 SYSTEMS ENGINEERING
 - 1.7.1.1 SYSTEMS ENGINEERING
 - 1.7.1.2 REQUIREMENTS ANALYSIS
 - 1.7.1.3 AUTOMATED DATA PROCESSING ENVIRONMENT
 - 1.7.2 PROGRAM MANAGEMENT
 - 1.7.2.1 PROGRAM MANAGEMENT
 - 1.7.2.2 DATA CONTROL
 - 1.7.2.3 CONFIGURATON MANAGEMENT
 - 1.7.2.4 COST/SCHEDULE CONTROL SYSTEM CRITERIA (C/SCSC)
 - 1.7.2.5 SOFTWARE VERIFICATION AND VALIDATION
- 1.8 DATA CONTROL
 - 1.8.1 TECHNICAL DATA
 - 1.8.2 MANAGEMENT DATA

- 1.9 (DELETED)
- 1.10 CONTRACTOR FURNISHED EQUIPMENT
 - 1.10.1 SOFTWARE
 - 1.10.2 ADPE MAINTENANCE
 - 1.10.3 NEW PROCESSING EQUIPMENT
 - 1.10.4 NEW SOFTWARE ACQUISITION
 - 1.10.5 MAINTENANCE
 - 1.10.6 TRAINING
 - 1.10.7 INSTALLATION OF SEE
 - 1.10.8 SEE ADMINISTRATION

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY A

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DDCSO REQ	8. APP CLK (A)	9. INPUT DDCAC (B)	10. FREQUENCY 11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUBMITTAL	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)
1003	DATA ACCESSION LIST/INTERNAL DATA	DI-A-3027A	SOW PARA 3.8.2.2	3246TW/TFP-	LT	D		QRTLY	BLK16	BLK16	3246TW/TFP-1 2-3/0 AFDPC/PER IF ONLY 6510TW/TFP 1/0
16. REMARKS											
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 11: END OF THE CONTRACTOR'S REPORTING QUARTER.</p> <p>BLK 12: SUBMIT 30 DAYS FOLLOWING CLOSE OF FIRST REPORTING QUARTER.</p> <p>BLK 13: SUBSEQUENT SUBMITTALS DUE 30 DAYS FOLLOWING EACH REPORTING QUARTER THEREAFTER.</p>											
										15. TOTAL	4/0

Chg Letter
 MAP/CO
 6/17/94

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY [Signature]

DATE 30 AUG 1991

133657-88-C-2093, P00017
 Attachment 10, Page 13 of 51

INSTRUCTIONS FOR USE OF AFSC FORM 2397

1. The data user, upon review of the Accession List, may complete AFSC Form 2397 (Blocks 1 thru 6) and forward for further processing to either the SPO Data Management Office or, when authorized, the Data Management Representative located at the contractor's facility. Requests for Accession List reports from users other than SPO personnel will be validated by the respective OPR located in the SPO.
2. The Contracting Officer will complete Block 8 and forward directly to the Contractor shown in Block 3.
3. Contractor will process the order (completing Block 9), mail the report direct to the user, and return the AFSC Form 2397 to the SPO Data Management Office for permanent file.

AFSC Form 2397, JUL 86 (Reverse)

REPLACES ALSO FORM 17, NOV 71, WHICH IS OBSOLETE.	1. TITLE		2. IDENTIFICATION NO.	
	3. CONTRACTOR		4. CONTRACT NO.	5. SECURITY CLASS
	6. DATA USER'S ADDRESS		OFFICE	DATE
			SIGNATURE	
	7. DATA MANAGER'S SIGNATURE/DATE		8. CONTRACTING OFFICER'S SIGNATURE/DATE	
	9. CONTRACTOR'S SIGNATURE			DATE PROCESSED
	10. REMARKS			

AFSC Form 2397, JUL 86

ACCESSION LIST REPORT ORDER

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY A

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DDCSO REQ	8. APP CLK (A)	9. INPUT FUNC (K)	11. AS OF DATE	13. DATE OF SUBMITTAL SUPPLEMENT ID
1. 1004	2. ABSTRACT OF NEW TECHNOLOGY (ANT) 3.	6. AFDTC/PER	10. ASREQ	12. BLK16	14. AFDTC/PER 1/0	
4. DI-A-3028B	5. PATENT RIGHTS CLAUSE	7. LT	8. D	9.	11.	13. BLK16
16. REMARKS						
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS. GOVERNMENT RESPONSE TO THE SUBMITTAL DUE 30 DAYS AFTER RECEIPT OF THE DATA.</p> <p>BLKS 10, 12 & 13: DELIVER AS REQUIRED IN ACCORDANCE WITH THE PATENT RIGHTS CLAUSE OF THE CONTRACT WITHIN 30 DAYS OF CONTRACTOR APPLICATION FOR PATENTS OF ANYTHING DEVELOPED ON THIS CONTRACT.</p>						
15. 2/0 TOTAL						
PREPARED BY <i>James R Green</i>	DATE 30 AUG 1991	APPROVED BY <i>Thomas R. King</i>			DATE 30 AUG 1991	

CONTRACTOR DATA REQUIREMENT LIST

ATTN: MR. 1 TO EXHIBIT

TO CONTRACTOR/PN 233657-88-C-2093

CATEGORY A

CONTRACTOR CALSPAN

SYSTEM/ITEM BDCAP SYSTEM

1. SEQ. NUMBER		2. TITLE OR DESCRIPTION OF DATA		3. SUBTITLE		4. AUTHORITY (Data Item Number)		5. CONTRACT REFERENCE		6. TECHNICAL OFFICE		7. FREQUENCY		8. DATE OF 1ST SUBMISSION		9. DISTRIBUTION AND ADDRESSES (Indicate - Regular Copies/Ingrs Copies)		10. DATE OF 1ST SUBMISSION		11. DATE OF 1ST SUBMISSION		12. DATE OF 1ST SUBMISSION		13. DATE OF 1ST SUBMISSION		14. DATE OF 1ST SUBMISSION		15. DATE OF 1ST SUBMISSION		16. REMARKS	
1005		CONFERENCE AGENDA		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		3246TM/TF-1		DI-A-7000 SEE BLK 16	
16.		REMARKS		BLK 5: ROW PARA 3.13.1, 3.13.2.1, 3.13.2.2, 3.13.2.3, 3.13.2.4, 3.13.2.5, 3.13.2.6, 3.13.2.7, 3.13.2.8, 3.13.2.9, 3.13.2.13, 3.14.2, 3.14.3C, 3.7.5, 3.15.6		BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST COL FOR APPLICABLE STATEMENTS.		BLK 10, 12 & 13: SUBMIT 15 DAYS BEFORE EACH REVIEW AND AUDIT.																							
15.		TOTAL		1/0		1/0		1/0		1/0		1/0		1/0		1/0		1/0		1/0		1/0		1/0		1/0		1/0		1/0	
14.		DATE		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991		30 AUG 1991	

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY A

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE			10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Address - Regular Copies/Repro Copies)	
4. AUTHORITY (Data Item Number)			7. DDCSO REQ	8. APP CODE (A)	9. INPUT POINT (B)	11. MS OF LINE	13. DATE OF SUBMITTAL SUB/DIST ID		
1. 1006	2. CONFERENCE MINUTES 3.		6. 3246TW/TFF-1			10. BLK16	12. BLK16	14. 3246TW/TFF-1	2 3/0
4. DI-A-7089		5. SEE BLK 16	7. LT	8. AD	9.	11.	13. BLK16	14. AFMPC/PER	IF ONLY
16. REMARKS									
BLK 5: SOW PARA 3.13.2.1, 3.13.2.5, 3.13.2.6, 3.13.2.8, 3.13.2.9, 3.13.2.13, 3.14.2, 3.14.3c, 3.7.5, 3.15.6 BLK8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS. BLKs 10, 12, & 13: SUBMITTAL DUE WLT 15 DAYS AFTER EACH REVIEW AND AUDIT.									
								15. TOTAL	7/0

Chg Letter
 MAP/CO
 6/17/94

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY [Signature]

DATE 30 AUG 1991

P3657-88-C-2093, P00017
 Attachment 10, Page 17 of 51

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY CMAN

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Specio Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DD250 REQ	8. REP COPY (A)	9. INPUT TO/AC (X)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/VENT ID
1. 1007	2. CONFIGURATION MANAGEMENT PLAN (CMP) 3.	6. 3246TM/TFP-	10. ONE/R	12. BLK16	14. 3246TM/TFP-1 2 3/0 6/17/94	
4. DI-CMAN-80405/T	5. SOW PARA 3.7.1	7. LY	8. AD	9.	11.	13. BLK16
16. REMARKS						
<p>BLK 4: "ISSUING AUTHORITY" ON DID PARAGRAPH 10.2.2 AND DID PARAGRAPH 10.2.11 MAY BE DELETED. THE CONTRACTOR'S INTERNAL PROCEDURES FOR ASSIGNING PROJECT UNIQUE IDENTIFIERS FOR "MCCR" AND "CMAN" TYPE CDRL ITEMS SHOULD BE ADDRESSED PER DID PARAGRAPH 10.2.4.a.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 12: SUBMITTAL DUE 60 DAYS ARO (AS A REVISION TO CALSPAN DOCUMENT S300A305507).</p> <p>BLK 13: CHANGES IDENTIFIED BY THE CONTRACTOR/GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS VIA CHANGE PAGES.</p>						
					15. 4/0	
					TOTAL	

Chg Letter
 MAP/CO
 6/17/94

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY [Signature]

DATE 30 AUG 1991

337-88-C-2093, P00017
 Attachment 10, Page 18 of 51

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____ SYSTEM/ITEM REDCAP SYSTEM
 TO CONTRACTOR/PR F33657-88-C-2093 CATEGORY CMAN CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DDC250 REQ	8. APP CITE (A)	9. INPUT INTRC (X)	10. FREQUENCY 11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Paper Copies)						
1009	ENGINEERING CHANGE PROPOSAL		3246TW/TFP-				ASREQ	BLK16		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">3246TW/TFP-1</td> <td style="width: 20%; text-align: center;">5/0</td> </tr> <tr> <td>AFDTC/PER</td> <td style="text-align: center;">1/0</td> </tr> <tr> <td>FTD/TTIV</td> <td style="text-align: center;">1/0</td> </tr> </table>	3246TW/TFP-1	5/0	AFDTC/PER	1/0	FTD/TTIV	1/0
3246TW/TFP-1	5/0															
AFDTC/PER	1/0															
FTD/TTIV	1/0															
	DI-CMAN-80639/T	SOW PARA 3.7.3.1	LT					BLK16								
<p>16. REMARKS</p> <p>BLK 4: FOR DD FORM 1692-2, RCP PAGE 2, BLK 361; CRITICAL SINGLE POINT FAILURE ITEMS, INDICATE DIRECT AND INDIRECT EFFECTS OF THE RCP ON CRITICAL SINGLE POINT FAILURE ITEMS.</p> <p>A CRITICAL SINGLE POINT FAILURE ITEM IS DEFINED AS: 'A COMPONENT OR ITEM NOT COMPENSATED BY REDUNDANCY, BACK-UP SYSTEMS OR OPERATIONAL PROCEDURES, AND WHOSE FAILURE COULD RESULT IN A CLASS A OR B WISNAP AS DEFINED IN AFR 127-4'.</p> <p>EACH RCP, SHALL INCLUDE A NARRATIVE CONCERNING ITS IMPACT UPON SAFETY, WITH HAZARDS LISTED, THEIR RISK ASSESSMENT AND IMPACT UPON THE PRESENT OR PROPOSED SYSTEM. IF NO POTENTIAL HAZARDS EXIST, THE BASIS FOR SUCH DETERMINATIONS MUST BE INCLUDED.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLKS 10, 12, & 13: SUBMIT AS REQUIRED WITHIN 30 DAYS AFTER ACSE APPROVAL.</p>																
PREPARED BY			DATE		APPROVED BY			15. TOTAL								
James R Green			30 AUG 1991		<i>James R Green</i>			7/0 30 AUG 1991								

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY CMAM

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DD250 REQ	8. App Code (A)	9. Input Data (A)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/EVENT ID
1. 1010	2. REQUEST FOR DEVIATION 3.	6. 3246TW/TFP-	10. ASREQ	12. BLK16	14. 3246TW/TFP-1 5/0	
4. DI-CMAM-80640	5. SOW PARA 3.7.3.2	7. LT	8. AD	9.	11.	13. BLK16
16. REMARKS						
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLKS 10, 12 AND 13: AS REQUIRED BY MIL-STD-480B.</p>						
					15. 7/0	
					TOTAL	

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY Thomas R. King

DATE 30 AUG 1991

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY E

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DESO REQ	8. APP CITE (S)	9. INPUT POLAC (S)	11. AS OF DICE	13. DATE OF SUBSEQUENT SUB/EVENT ID
1. 1011	2. SIMULATOR SYSTEM ENGINEERING MANAGEMENT PLAN 3.	6. 3246TW/TFP-	10. ONE/R	12. BLK16	14. 3246TW/TFP-1	2 3/0
4. DI-E-7144	5. SOW PARA 3.12.1.3, 3.12.5	7. LT	8. AD	9.	11.	13. BLK16
16. REMARKS					14. 6510 TW/TSDE	1/0

Chg Letter
 MAP/CO
 6/17/94

BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.

BLKS 10, 12 & 13: CHANGES TO THE APPROVED SSEMP IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS VIA CHANGE PAGES.

BLK 12: DRAFT SSEMP DUE 30 DAYS AFTER SYSTEM REQUIREMENT REVIEW (SRM) #1.

BLK 13: SSEMP UPDATE DUE 30 DAYS AFTER SYSTEM REQUIREMENT REVIEW (SRM) #2. CHANGES TO THE APPROVED SSEMP IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS VIA CHANGE PAGES.

NOTE: UPDATES AFTER 1 FEB 91 ARE NOT NEEDED.

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY Thomas R. [Signature]

DATE 30 AUG 1991

15. 4/0
TOTAL

F33657-88-C-2093, P00017
 Attachment 10, Page 22 of 57

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY F

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DODSO REQ	8. APP CITE (A)	9. INPUT DOTAC (B)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/EVENT ID
1. 1012	2. COST PERFORMANCE REPORT (CPR) 3.	6.	10.	12.	14.	
4. DI-F-6000C/T	5.	7.	8.	9.	11.	13.
16. REMARKS						
<p>(2) THE COST VARIANCE PERCENTAGE ((BCWP-ACWP)/BCWP) IS +/- 5% OR MORE, AND THE COST VARIANCE (BCWP-ACWP) IS MORE THAN \$100,000.</p> <p>(3) THE DIFFERENCE BETWEEN BAC AND LRE IS +/- 5% OR MORE OF BAC, AND THE VARIANCE AT COMPLETION IS MORE THAN \$100,000.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 11: END OF ACCOUNTING PERIOD.</p> <p>BLK 12: FIRST REPORT DUE 25 CALENDAR DAYS AFTER COMPLETION OF THE FIRST FULL ACCOUNTING PERIOD AFTER CONTRACT AWARD.</p> <p>BLK 13: SUBSEQUENT REPORTS TO BE SUBMITTED NO LATER THAN THE 25TH DAY OF THE MONTH FOLLOWING THE MONTH OF PERFORMANCE. VARIANCE ANALYSIS (FORMAT 5) SHALL BE IN ACCORDANCE WITH INSTRUCTIONS PROVIDED IN DODI 7000.10 AND AFSCP 173-5.</p>						
					15. 5/0 TOTAL	

PREPARED BY *James R Green*

DATE
30 AUG 1991

APPROVED BY *Thomas R Green*

DATE
30 AUG 1991

F33657-88-C-2093, P00017
Attachment 10, Page 24 of 51

REDCAP SIMULATOR UPGRADE PROGRAM
CONTRACT: F33657-88-C-2093
CPR REPORTING LEVELS

WBS ELEMENT	WBS LEVEL	
1.0	REDCAP UPGRADE PROGRAM	1
1.1	SUAWACS BM/C3	2
1.1.1	SUAWACS BM/C3 PRIME MISSION EQUIP	3
1.1.1.1	SUAWACS MODIFICATIONS/ADDITIONS	4
1.1.1.2	PILOT STATIONS	4
1.1.1.3	DATA LINKS	4
1.1.1.4	COMMEG	4
1.1.1.5	SCIF I/O	4
1.1.1.6	SUAWACS BM/C3 INTEG & ASSEMBLY	4
1.1.2	SUAWACS BM/C3 TRAINING	3
1.1.3	SUAWACS BM/C3 TEST & EVALUATION	3
1.1.5	SYSTEM ENGINEERING/PROGRAM MGT	3
1.2	IADS/ARCHITECTURE	2
1.2.1	ARCHITECTURE	3
1.2.1.1	ARCHITECTURE PRIME MISSION EQUIP	4
1.2.1.2	ARCHITECTURE TRAINING	4
1.2.1.3	ARCHITECTURE TEST & EVALUATION	4
1.2.1.5	SYSTEMS ENGINEERING/PROGRAM MGT	4
1.2.2	IADS NETWORK	3
1.2.2.1	IADS PRIME MISSION EQUIPMENT	4
1.2.2.2	IADS TRAINING	4
1.2.2.3	IADS TEST & EVALUATION	4
1.2.2.5	SYSTEMS ENGINEERING/PROGRAM MGT	4
1.2.3	RISK REDUCTION/PROTOTYPE NETWORK	3
1.2.3.1	ARCHITECTURE	4
1.2.3.2	IADS NETWORK	4
1.2.3.3	PROTOTYPE INTEGRATION	4
1.2.3.4	PROTOTYPE TEST	4
1.2.3.5	MATERIALS	4
1.3	EW/GCI RADARS	2
1.3.1	EW/GCI RADAR PRIME MISSION EQUIP	3
1.3.1.1	OLD RADARS	4
1.3.1.2	NEW RADARS	4
1.3.1.3	RADAR CONTROL PANELS (RCP)	4
1.3.1.4	RADAR SWITCH	4
1.3.1.5	PULSE ENVIRONMENT GENERATOR (PEG)	4
1.3.1.6	RADAR SIMULATOR INTEG & ASSEMBLY	4
1.3.2	RADAR SIMULATOR TRAINING	3
1.3.3	EW/GCI RADAR SIMULATOR TEST & EVAL	3
1.3.5	SYSTEM ENGINEERING/PROGRAM MGT	3
1.4	FACILITY MODIFICATIONS	2
1.5	SIMULATOR INTERFACE EFFORTS (SIE)	2
1.6	SYSTEM TEST & EVALUATION	2
1.7	SYSTEMS ENGINEERING/PROGRAM MGT	2
1.8	DATA CONTROL	2
1.8.1	TECHNICAL DATA	3
1.8.2	MANAGEMENT DATA	3
1.10	CONTRACTOR FURNISHED EQUIPMENT	2

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY F

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CAESPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CODE (A)	9. INPUT TO/AC (A)	10. FREQUENCY 11. AS OF DME	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/REPT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)
1. 1013	2. CONTRACT FUNDS STATUS REPORT (CFSR) 3.	4. DI-F-6004B/T	5. SOW PARA 3.11.1	6. 3246TW/TFP-1	7. LT	8. AD	9.	10. QRTLY 11. BLK16	12. BLK16	13. BLK16	14. 3246TW/TFP-1 1/0 AFDTC/PER LT ONLY 3246TW/CFS 1/0 ACO-DOWNS 3/0 AFDTC/PER 1/0 46TW/TSTB 1/0
16. REMARKS											15. 6/0
<p>BLK 4: CONTRACTOR FORMAT ACCEPTABLE, SUBJECT TO GOVERNMENT APPROVAL. REPORTING SHALL BE AT CWBS LEVEL 1. THE FIRST COLUMN IN ITEM 12 WILL REMAIN 'ACTUALS CUMULATIVE TO DATE;' HOWEVER, COLUMNS 2-6 WILL BE HEADED TO INDICATE PROJECTED CUMULATIVE FROM THE START OF THE CONTRACT TO THE END OF THE NEXT QUARTER, FOR FIVE CONSECUTIVE QUARTERS (INSTEAD OF BY FISCAL YEAR). COLUMNS 7-10 WILL INDICATE THE REMAINDER OF THE CONTRACT BY FISCAL YEAR, WITH THE LAST COLUMN REMAINING THE PROJECTED CUMULATIVE FROM THE START TO THE END OF THE CONTRACT.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 11: END OF CONTRACTOR'S ACCOUNTING QUARTER.</p> <p>BLK 12: SUBMIT CFSR ON 25TH DAY OF MONTH FOLLOWING CLOSE OF THE FIRST FULL ACCOUNTING QUARTER.</p> <p>BLK 13: SUBSEQUENT SUBMITTALS WILL BE THE 25TH DAY OF THE MONTH FOLLOWING THE QUARTER OF PERFORMANCE THEREAFTER. REPORTING SHALL BE DISCONTINUED WHEN THE COST PERFORMANCE REPORT IS DISCONTINUED.</p>											TOTAL
PREPARED BY <u>James R Green</u>				DATE <u>30 AUG 1991</u>		APPROVED BY <u>[Signature]</u>				DATE <u>30 AUG 1991</u>	

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY F

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CTR (A)	9. INPUT (X)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)
1. 1014	2. FUNCTIONAL COST HOUR REPORT (DD FORM 1921-1) 3.	4. DI-F-6007/T	5. SOW 3.11.1	6. 3246TW/TFP-	7. LT	8. D	9.	10. OTIME	11. BLK16	12. BLK16	13.	14. 3246TW/TFP-1 1/0 3246TW/TF3 1/0 AFDC/PER LT ONLY AFDC/PWCI 1/0
16. REMARKS												
<p>BLK 4: FORMAT AND REPORTING LEVELS CONSISTENT WITH COST PERFORMANCE REPORT.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 11: AS OF DATE "CONTRACT COMPLETION".</p> <p>BLK 12: SUBMITTAL DUE 30 DAYS AFTER CONTRACT COMPLETION.</p>												
											15. 3/0	
											TOTAL	

PREPARED BY James R Green DATE 30 AUG 1991 APPROVED BY Thomas R. [Signature] DATE 30 AUG 1991

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY GDRQ

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Speco Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DIRSO REQ	8. APP CITE (S)	9. DIR/UT DUTAC (S)	11. AS OF DATE	13. INDEX OF SUBSEQUENT SUPPLEMENT ID
1. 1015	2. AVIONICS INTEGRITY MASTER PLAN (AIMP) 3.	6. 3246TW/TFP-	10. ONE/R	12. BLK16	14. 3246TW/TFP-1	15. 3/0
4. DI-GDRQ-80435	5. SOW PARA 3.9.1.1	7. LT	8. AD	9.	11. BLK16	13. LT ONLY
16. REMARKS						
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLKS 10 & 13: CHANGES TO THE APPROVED PHASE 1 AIMP, IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS VIA CHANGE PAGES.</p> <p>BLK 12: DUE NOT LATER THAN 30 DAYS BEFORE SYSTEM DESIGN REVIEW (SDR).</p>						
PREPARED BY		DATE		APPROVED BY		DATE
James R Green		30 AUG 1991		<i>Thomas R. King</i>		30 AUG 1991

Chg Letter
 MAP/CO
 6/17/94

F33657-88-C-2093, P00017
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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY GDRQ

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Spec Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DDQSO REQ	8. APP CODE (A)	9. INPUT MOD (A)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBM/EVENT ID
1. 1016	2. AVIONIC/ELECTRONIC INTEGRITY PROGRAM 3. TECHNICAL REPORT (AVIP-TR)	6. 3246TW/TYP-	10. QRTLY	12. BLK16	14. 3246TW/TYP-1	
4. DI-GDRQ-80436	5. SOW PARA 3.9.1.3	7. LT	8. D	9.	11.	13. BLK16
16. REMARKS						
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 12: SUBMIT REPORT NOT LATER THAN 30 DAYS FOLLOWING CLOSE OF FIRST QUARTER AFTER CONTRACT AWARD.</p> <p>BLK 13: SUBSEQUENT SUBMITTALS SHALL BE DUE 30 DAYS AFTER CLOSE OF EACH QUARTER OF PERFORMANCE THEREAFTER.</p>						
					15. 3/0 TOTAL	

Chg Letter
 MAP/CO
 2 3/0 6/17/94

PREPARED BY James R Green DATE 30 AUG 1991 APPROVED BY Thomas R. King DATE 30 AUG 1991

F33657-88-C-2093, P00017
 Sheet 10, Page 29 of 51

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MCCR

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE			10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Address - Regular Copies/Repro Copies)	
4. AUTHORITY (Data Item Number)			7. DD250 REQ	8. APP CITE (A)	9. INPUT TO IAC (X)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/EVENT ID		
1017	SOFTWARE DEVELOPMENT PLAN		3246TW/TFP-			ONE/R	BLK16	3246TW/TFP-1	3 3/0
	DI-MCCR-80030A	3.7.1 SOW PARA 3.1, 3.2, 3.3,	LT	AD			BLK16	AFDTC/PRR	LT ONLY
								6510 TW/TSDR	1/0

16. REMARKS

BLK 4: PREPARE AND DELIVER ON (BOUND) 8 1/2 BY 11 INCH BOND PAPER.

BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.

BLK 10 & 13: CHANGES (TO THE PHASE 1 SDP) IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS VIA CHANGE PAGES.

BLK 12: DUE NLT 30 DAYS BEFORE THE INITIAL SYSTEM DESIGN REVIEW (SDR).

Chg Letter
 MAP/CO
 6/17/94

PREPARED BY <u>James R Green</u>	DATE <u>30 AUG 1991</u>	APPROVED BY <u>[Signature]</u>	DATE <u>30 AUG 1991</u>
----------------------------------	-------------------------	--------------------------------	-------------------------

15. 4/0
TOTAL

F33657-88-C-2093, P00017
Attachment 10, Page 30 of 51

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MISC

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. SUP CTR (A)	9. INPUT FOR AC (X)	10. FREQUENCY 11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Regco Copies)
1. 1019	2. CONTRACT DATA STATUS AND SCHEDULE REPORT 3. DATA TRACKING	4. DI-MISC-80167A/T	5. SOW PARA 3.8.1d	6. 3246TW/TFP-	7. LY	8. D	9.	10. MONTHLY	12. BLK16	13. BLK16	14. 3246TW/TFP-1 2/0 AFDTC/PER 1X ONLY FED/TYDEV 1/0 AFDTC/OL 1/0 6510 TW/TFP 1/0
16. REMARKS											
<p>BLK 4: CONTRACTOR FORMAT ACCEPTABLE. AS A MINIMUM, INCLUDE THE DATA REQUIRED BY 10.1.2.1 AND 10.1.2.2 BY CDRL TITLE/SEQUENCE NUMBER AND PROJECTED DUE DATE (10.1.1d) REQUIRED BY THE DID.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 12: INITIAL SUBMITTAL DUE WLT 45 DAYS AFTER RECEIPT OF ORDER FOR FIRST 90 DAY PERIOD.</p> <p>BLK 13: SUBSEQUENT SUBMITTALS DUE WLT 15TH OF FOLLOWING MONTH FOR EACH CALENDAR MONTH THEREAFTER.</p>											
										15. 5/0	
										TOTAL	

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY Thomas R. Long

DATE 30 AUG 1991

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CONTRACTOR DATA REQUIREMENT LIST									
ATCH NR <u>1</u> TO EXHIBIT _____		CATEGORY <u>MISC</u>				SYSTEM/ITEM <u>REDCAP SYSTEM</u>			
TO CONTRACTOR/PR <u>F33657-88-C-2093</u>						CONTRACTOR <u>CALSPAN</u>			
1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE			10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)		
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DDCSO REQ	8. REP CODE (A)	9. INPUT POINT (X)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBM/EVENT ID			
1. 1020	2. CONTRACT DATA STATUS AND SCHEDULE REPORT 3. CONTRACT MILESTONES REPORT	6. 3246TW/TYP-			10. QRTLY	12. BLK16	14. Chg Letter MAP/CO 6/17/94		
4. DI-MISC-80167A/T	5. SOW PARA 3.12.3, 3.13.1	7. LT	8. AD	9.	11.	13. BLK16	14. 3246TW/TYP-1 2 3/0 AFDC/PER 1/0 3246TW/TYS 1/0 FDI/TIEV 1/0		
16. REMARKS									
<p>BLK 4: CONTRACTOR FORMAT ACCEPTABLE TO INCLUDE DATA REQUIRED BY PARAGRAPH 10.1.10 WITH '(DAY OF THE MONTH)' DELETED.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 12: SUBMIT PROPOSED MILESTONE SCHEDULE WITH PROPOSAL.</p> <p>BLK 13: SUBMIT MILESTONE SCHEDULE, STARTING 3 MONTHS AFTER RECEIPT OF ORDER. ON A QUARTERLY BASIS THEREAFTER.</p>									
15. TOTAL						6/0			
PREPARED BY <i>James R Green</i>		DATE 30 AUG 1991		APPROVED BY <i>Thomas R Roney</i>		DATE 30 AUG 1991			

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY QCIC

SYSTEM/ITEM REDCAF SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CITE (X)	9. INPUT POLIC (X)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUP/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Paper Copies)
1. 1021	2. SOFTWARE QUALITY PROGRAM PLAN 3.	4. DI-QCIC-80572	5. 3.9.3 SOW PARA 3.1, 3.2, 3.3,	6. 3246TW/YFP-	7. LT	8. AD	9.	10. ONE/R	11.	12. BLK16	13. BLK16	14. 3246TW/YFP-1 AFDC/PER 6510 TW/TSBK

Chg Letter
 MAP/CO
 6/17/94

16. REMARKS

BLK 4: DOCUMENT SHALL BE PREPARED AND DELIVERED ON BOUND 8 1/2 BY 11 INCH BOND PAPER.

BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.

BLKS 10 & 13: CHANGES (TO THE APPROVED PHASE 1 PLAN) IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS VIA CHANGE PAGES.

BLK 12: DUE NOT LATER THAN 30 DAYS PRIOR TO THE FIRST SOFTWARE SPECIFICATION REVIEW (SSR).

PREPARED BY James R Green DATE 30 AUG 1991 APPROVED BY [Signature] DATE 30 AUG 1991

15. TOTAL 4/0

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY F

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CODE (A)	9. INPUT TOTAC (X)	10. FREQUENCY 11. AS OF DATE	12. DATE OF 1ST SUBMISSION 13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Prepro Copies)
1. 1022	2. INPUT DATA FOR PARAMETRIC COST MODELS 3.	4. DI-F-30207/T	5. SOW PARA 3.12.7	6. 3246TW/TFF-	7. LT	8. D	9.	10. 11. BLK16	12. BLK16 13. BLK16	14. 3246TW/TFF-1 2/0 AFDC/PER LT ONLY ACD - PCPD 1/0
16. REMARKS										
<p>BLK 4: AFSC FORM 2540 (SEE ATTACHMENT 1) WILL BE SUBMITTED "AT ESSENTIALLY" THE LINK REPLACEABLE UNIT (LRU) LEVEL OF THE PRIME MISSION EQUIPMENT AND SUPPORT EQUIPMENT. LOWER LEVEL DETAIL IS ACCEPTABLE (SHOP REPLACEABLE UNIT, MODULES, ETC.) AS LONG AS IT IS ACCUMULATED TO THE "LRU" LEVEL.</p> <p>AFSC FORM 2499a (SEE ATTACHMENT 2, WHICH SUPERSEDES AFSC FORM 169a) WILL BE SUBMITTED FOR SYSTEM, SUBSYSTEM, AND SUPPORT EQUIPMENT SOFTWARE AT THE CSCI LEVEL.</p> <p>THE AFSC FORM 2540 AND AFSC FORM 2499a WILL BE SUBMITTED FOR ALL CONTRACTUAL EFFORT (PRIME CONTRACTOR, SUBCONTRACTED, VENDOR, MODIFIED PURCHASED OR GFE/SOFTWARE) PER THE INSTRUCTIONS IN ATTACHMENTS 3 AND 4.</p> <p>EVERY EFFORT SHOULD BE MADE TO INCLUDE ONLY THE ACTIVE ELECTRONICS AND THE BOARDS AS ELECTRONIC WEIGHT. THE BOARD HEAT SINKS, ELECTRONIC MODULE ENCLOSURES, ETC., SHOULD BE INCLUDED AS STRUCTURAL WEIGHT.</p> <p>IDENTIFY IN THE REMARKS SECTION OF EACH AFSC FORM 2540 THE AMOUNT OF STRUCTURAL/MECHANICAL DESIGN REPEAT.</p> <p>BLOCK 20a OF AFSC FORM 2540, "ELECTRONIC DESCRIPTION OF PERCENTAGE OF CONTENT" IDENTIFY THE ELECTRONICS BY APPLICATION AND TECHNOLOGY. THE PERCENTAGES FOR THIS BLOCK MUST TOTAL 100%.</p> <p>SEE CONTINUATION PAGE.</p>										
										15. 3/0 TOTAL

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY Thomas R. [Signature]

DATE 30 AUG 1991

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY F

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)							
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DD250 REQ	8. APP CITE (A)	9. INPUT ROTAC (X)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/EVENT ID						
1. 1022	2. INPUT DATA FOR PARAMETRIC COST MODELS 3.	6.										
4. DI-F-30207/T	5.	7.	8.	9.	11.	13.						
<p>16. REMARKS</p> <p>A "FAMILY-TREE" TYPE WIRING DIAGRAM SHOULD BE PROVIDED DETAILING HOW THE LRUs ARE INTEGRATED WITH EACH OTHER TO FORM THE TOTAL HARDWARE SYSTEM AND A SEPARATE DIAGRAM DETAILING HOW THE CSCIs INTEGRATE TO FORM THE TOTAL SOFTWARE SYSTEM.</p> <p>ATTACH TO THE AFSC FORM 2540 ANY UNCLASSIFIED DRAWINGS, EXPLODED VIEWS, DIAGRAMS, ETC., THAT WOULD HELP IN DESCRIBING THE HARDWARE.</p> <p>THE COSTS PROVIDED FOR DISCRETE PARTS OF THE LRUs OR SOFTWARE THAT ARE PURCHASED SHOULD REFLECT THE VENDOR'S PRICE TO THE PRIME CONTRACTOR. THE PRIME CONTRACTOR'S ADDITIONAL LOADINGS (G&A, MATERIAL HANDLING, FEE, ETC.) THAT WOULD REFLECT THE TOTAL PRICE TO THE GOVERNMENT FOR THE PURCHASED ITEMS SHOULD BE SEPARATELY IDENTIFIED IN THE REMARKS SECTION OF FORMS 2540 AND COMMENTS SECTION OF AFSC FORM 2499a.</p> <p>IDENTIFY THE HARDWARE ELEMENTS THAT INTEGRATE WITH SOFTWARE CSCIs IN THE COMMENTS SECTION OF AFSC FORM 2499a.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 11: 30 DAYS PRIOR TO THE REQUIRED DELIVERY DATE.</p> <p>BLKS 12 AND 13: DUE 1 FEB 92.</p>						15. 3/0						
						TOTAL						
						PREPARED BY <i>James R Green</i>						DATE 30 AUG 1991
						APPROVED BY <i>Thomas R Rooney</i>						DATE 30 AUG 1991

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 Attachment 10, Page 36 of 51

HARDWARE PARAMETRIC DATA SHEET <small>(Use Additional Pages as Necessary)</small>		1. NAME OF UNIT	3. WORK BREAKDOWN STRUCTURE ELEMENT NO. (SNOE)																																									
HEAVILY LINED AREAS <small>DESIRED BUT NOT MANDATORY</small>		2. NAME OF CONTRACTOR	4a. CONTRACT LINE ITEM NO. _____																																									
			4b. REFERENCE TECH VOL. _____																																									
5a. QTY OF THIS UNIT USED IN NEXT HIGHER ASSY	5b. NAME OF NEXT HIGHER ASSY	9a. SOURCE OF UNIT <input type="checkbox"/> MANUFACTURED (IN-HOUSE) <input type="checkbox"/> PURCHASED (SEE NO. 10) <input type="checkbox"/> OFF THE SHELF <input type="checkbox"/> CUSTOM MADE <input type="checkbox"/> GFE	10. IF PURCHASED:																																									
6. NAME OF SYSTEM OR SUBSYSTEM			SUPPLIER NAME _____ PRODS. UNIT COST \$ _____ <input type="checkbox"/> FIXED PROD. UNIT COST \$ _____ <input type="checkbox"/> TO BE ESCALATED YEAR \$ _____ IF ESCALATED, INDICATE SCHEDULE AND RATES																																									
7. MILITARY SPECIFICATION REQUIRED			<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>PHASE (SEE 23)</th> <th>SCHEDULE FROM</th> <th>TO</th> <th>RATE</th> <th>OR GOVT STD</th> </tr> </thead> <tbody> <tr> <td>_____ %</td> <td>_____</td> <td>_____</td> <td>_____ %</td> <td><input type="checkbox"/></td> </tr> <tr> <td>_____ %</td> <td>_____</td> <td>_____</td> <td>_____ %</td> <td><input type="checkbox"/></td> </tr> <tr> <td>_____ %</td> <td>_____</td> <td>_____</td> <td>_____ %</td> <td><input type="checkbox"/></td> </tr> <tr> <td>_____ %</td> <td>_____</td> <td>_____</td> <td>_____ %</td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		PHASE (SEE 23)	SCHEDULE FROM	TO	RATE	OR GOVT STD	_____ %	_____	_____	_____ %	<input type="checkbox"/>	_____ %	_____	_____	_____ %	<input type="checkbox"/>	_____ %	_____	_____	_____ %	<input type="checkbox"/>	_____ %	_____	_____	_____ %	<input type="checkbox"/>															
PHASE (SEE 23)	SCHEDULE FROM	TO	RATE	OR GOVT STD																																								
_____ %	_____	_____	_____ %	<input type="checkbox"/>																																								
_____ %	_____	_____	_____ %	<input type="checkbox"/>																																								
_____ %	_____	_____	_____ %	<input type="checkbox"/>																																								
_____ %	_____	_____	_____ %	<input type="checkbox"/>																																								
8. SPECIAL ENVIRONMENTAL REQUIREMENTS	9b. IF PURCHASED OR GFE, ENTER % MODIFICATION REQUIRED _____ % OF TOTAL ELECTRONIC _____ % OF TOTAL MECHANICAL (EXPLAIN MODIFICATIONS IN REMARKS)																																											
7. YES, SPEC. NO. _____ (IF KNOWN) <input type="checkbox"/> NO. (EXPLAIN IN REMARKS) <input type="checkbox"/> UNKNOWN		8. <input type="checkbox"/> RADIATION HARDENING <input type="checkbox"/> TEMPEST <input type="checkbox"/> OTHER (EXPLAIN IN REMARKS)																																										
11a. PHYSICAL DESCRIPTION (REFERENCE TECHNICAL VOLUME: INCLUDE PHOTOGRAPHS, OR EXPLODED VIEWS, OR SCHEMATICS, AS APPROPRIATE.)																																												
11b. FUNCTIONAL DESCRIPTION (DESCRIBE FULLY. INCLUDE WHERE AND HOW USED AND CHECK CATEGORY IN 19 WHICH MOST CLOSELY FITS - INDICATE TYPE OF DISPLAY OR READOUT.)																																												
12a. ENCLOSURE CONSTRUCTION ENCLOSURE MATERIAL AND THICKNESS (INCHES) _____ SPECIAL PROCESSES (CHECK ANY THAT APPLY) <input type="checkbox"/> MACHINING <input type="checkbox"/> MILLING <input type="checkbox"/> WELDING <input type="checkbox"/> MODERATE <input type="checkbox"/> BRAZING <input type="checkbox"/> CASTING <input type="checkbox"/> CONSIDERABLE <input type="checkbox"/> POLISHING <input type="checkbox"/> X-RAY INSPECTION <input type="checkbox"/> SHOCK MOUNTING		12b. DISCRETE STRUCTURAL/MECHANICAL MODULES (i.e., GYROS, MOTORS, FANS, TRANSFORMERS, ENCLOSURE, BATTERIES, ANTENNAS, CABLING, TWT, ETC.) <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">NAME OF MODULE</th> <th rowspan="2">VOLUME (FT³)</th> <th rowspan="2">WEIGHT (LBS)</th> <th rowspan="2">QTY/ ASSY</th> <th colspan="4">SOURCE</th> </tr> <tr> <th>MADE</th> <th>% NEW DESIGN</th> <th>PURCH.</th> <th>COST (\$)</th> <th>YEAR</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td><input type="checkbox"/></td> <td>_____</td> <td><input type="checkbox"/></td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td><input type="checkbox"/></td> <td>_____</td> <td><input type="checkbox"/></td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td><input type="checkbox"/></td> <td>_____</td> <td><input type="checkbox"/></td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>			NAME OF MODULE	VOLUME (FT ³)	WEIGHT (LBS)	QTY/ ASSY	SOURCE				MADE	% NEW DESIGN	PURCH.	COST (\$)	YEAR	_____	_____	_____	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	_____
NAME OF MODULE	VOLUME (FT ³)	WEIGHT (LBS)	QTY/ ASSY	SOURCE																																								
				MADE	% NEW DESIGN	PURCH.	COST (\$)	YEAR																																				
_____	_____	_____	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	_____																																				
_____	_____	_____	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	_____																																				
_____	_____	_____	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	_____																																				
13a. NAMES OF OTHER UNITS INTERFACING WITH THIS UNIT		13b. CHECK THE APPROPRIATE BOXES BELOW TO INDICATE INTEGRATION REQUIREMENTS <table border="0" style="width:100%;"> <tr> <td style="vertical-align: top;"> MECHANICAL INTEGRATION <input type="checkbox"/> ONE SURFACE MOUNTING, NO MACHINING. <input type="checkbox"/> TWO SURFACE MOUNTING, NO MACHINING. <input type="checkbox"/> MODERATE MACHINING: SHIMMING. <input type="checkbox"/> CONSIDERABLE MACHINING. </td> <td style="vertical-align: top;"> ELECTRONIC INTEGRATION <input type="checkbox"/> POWER FURNISHED TO ASSEMBLY. <input type="checkbox"/> POWER FURNISHED: CABLED OUTPUT. <input type="checkbox"/> AS ABOVE, PLUS CALIBRATION, ADJUSTMENT, TUNING. <input type="checkbox"/> AS ABOVE, PLUS PARTS AND/OR SUB-ASSY REPLACEMENT. </td> </tr> </table>			MECHANICAL INTEGRATION <input type="checkbox"/> ONE SURFACE MOUNTING, NO MACHINING. <input type="checkbox"/> TWO SURFACE MOUNTING, NO MACHINING. <input type="checkbox"/> MODERATE MACHINING: SHIMMING. <input type="checkbox"/> CONSIDERABLE MACHINING.	ELECTRONIC INTEGRATION <input type="checkbox"/> POWER FURNISHED TO ASSEMBLY. <input type="checkbox"/> POWER FURNISHED: CABLED OUTPUT. <input type="checkbox"/> AS ABOVE, PLUS CALIBRATION, ADJUSTMENT, TUNING. <input type="checkbox"/> AS ABOVE, PLUS PARTS AND/OR SUB-ASSY REPLACEMENT.																																						
MECHANICAL INTEGRATION <input type="checkbox"/> ONE SURFACE MOUNTING, NO MACHINING. <input type="checkbox"/> TWO SURFACE MOUNTING, NO MACHINING. <input type="checkbox"/> MODERATE MACHINING: SHIMMING. <input type="checkbox"/> CONSIDERABLE MACHINING.	ELECTRONIC INTEGRATION <input type="checkbox"/> POWER FURNISHED TO ASSEMBLY. <input type="checkbox"/> POWER FURNISHED: CABLED OUTPUT. <input type="checkbox"/> AS ABOVE, PLUS CALIBRATION, ADJUSTMENT, TUNING. <input type="checkbox"/> AS ABOVE, PLUS PARTS AND/OR SUB-ASSY REPLACEMENT.																																											
14. OTHER APPLICATIONS OF THIS UNIT (INDICATE IF DESIGN, OR % OF DESIGN, FUNDED UNDER OTHER PROGRAMS. IF SO, SHOW AMOUNT FUNDED. DOES PREVIOUS DESIGN REQUIRE MODIFICATION? _____. WHAT % REQUIRES MODIFICATION? _____. IF PRODUCED IN OTHER PROGRAM, SHOW QUANTITY, PRODUCTION SCHEDULE, AND UNIT OR TOTAL PRODUCTION COST.)																																												
15. UNIT GEOMETRY AND WEIGHT TOTAL UNIT WEIGHT (LBS) _____ UNIT VOLUME (FT ³) _____ - OR - UNIT DIMENSIONS _____ (ATTACH DIAGRAM)		16. METHOD OF COOLING (i.e., BLOWERS, HEAT SINKS, PIPING, ETC.) INCLUDE WT. IN 12b and 17.		17. TOTAL STRUCTURAL/MECHANICAL WT (LBS) (INCLUDE WEIGHT OF ALL BUT ACTIVE ELECTRONICS)																																								
				18. ESTIMATED TOTAL % NEW DESIGN OF ALL STRUCTURAL/MECHANICAL COMPONENTS																																								

SOFTWARE PARAMETRIC INFORMATION			PAGE OF PAGES...	
I. SOFTWARE INPUT DATA				
1. NAME		2. SYSTEM NAME AND CONTRACTOR		
a. TITLE		3. WORK BREAK STRUCTURE (WBS) ELEMENT		
b. PHONE	c. DATE	CONTRACT LINE ITEM (CLIN)		
II. DESCRIPTION (Subsystem / System - Circle one)				
4. PURPOSE / MISSION / ENVIRONMENT (Describe)				
5. INSTRUCTIONS (Classify the nature of deliverable machine-level executable instructions. Since this category represents executable instructions, do not include those instructions associated for defining storage, constants, formats or comments. If word count is high, provide aggregate instructions into a common section.)				
6. PROGRAMMING LANGUAGE (Express the higher order language used such as FORTRAN, COBOL, JOVIAL, etc. Total number of HCL instructions should be stated in comments section.)				
7. MIX (Each entry defines the fraction of total instruction which falls into each application category. Entries for individual categories may do 0, but all entries must total 1)			8. PROPORTION INSTRUCTIONS REQUIRING NEW EFFORT (All entries need not total to 1)	
APPLICATIONS	IDENTIFYING CHARACTERISTICS	FRACTION OF TOTAL MACHINE INSTRUCTIONS	FRACTION REQUIRING	
			NEW DESIGN	NEW CODING
OPERATING SYSTEMS	Task Management Memory Management Heavy hardware overhead Many instructions High reliability and strict timing requirements			
INTERACTIVE OPERATIONS	Real time interactive operations Human engineering considerations and error protection very important			
REAL TIME COMMAND AND CONTROL	Machine to machine communications under strict timing constraints Changing bit patterns Heavy hardware overhead Strict reliability requirements			
ON-LINE COMMUNICATIONS	Machine to machine communications with timing allowed Timing restrictions not as restrictive as with real time commands and control			
DATA STORAGE AND RETRIEVAL	Operation of data storage devices Data base management Secondary storage handling Data copying and de-copying Memory management Hardware oriented			
STRING MANIPULATION	Routine applications with no overriding constraints Not oriented toward maintenance Typified by language conversion, sorting, formatting, buffer management, etc.			
MATHEMATICAL OPERATIONS	Routine mathematical operations with no overriding constraints			
9. SCHEDULE (Enter start and finish dates - month/year - for entire software program. Enter intermediate dates if these are useful or gaps exist.)				
a. START DATE OF DESIGN PHASE		b. END DATE OF DESIGN PHASE		
c. START DATE OF IMPLEMENTATION		d. END DATE OF IMPLEMENTATION		
e. START DATE OF TEST & INTEGRATION		f. END DATE OF TEST & INTEGRATION		
10. UTILIZATION				
FRACTION OF AVAILABLE MEMORY/CYCLE TIME USED BY SOFTWARE. IF HARDWARE CONSTRAINS DEVELOPMENT EFFORT BY EITHER MEMORY OR TIMING, ENTER FRACTION OF TOTAL AVAILABLE CAPACITY UTILIZED. VALUES OF 99% OR LESS HAVE NO EFFECT ON COSTS. WHILE UPPER LIMIT IS 99%.				
a. PERCENTAGE OF AVAILABLE HARDWARE SPEED UTILIZED			b. PERCENTAGE OF AVAILABLE MEMORY CAPACITY UTILIZED	

11. COMPLEXITY (Check complexity/qualifying factors applicable to software-development project.)

a. PERSONNEL		b. ENVIRONMENT			
RELATIVELY INEXPERIENCED MANY NEW HIRES	EXTENSIVE EXPERIENCE SOME TOP TALENT	OLD HAT. REDO OF PREVIOUS WORK	NEW HARDWARE AND NEW LANGUAGE	MANY CHANGING REQUIREMENTS	
MIXED EXPERIENCED SOME NEW HIRES	EXCEPTIONAL CREW BEST TALENT IN INDUSTRY	FAMILIAR TYPE OF PROJECT	NEW HARDWARE OR NEW LANGUAGE	MORE THAN ONE LOCATION/ ORGANIZATION	
NORMAL CREW EXPERIENCED		NORMAL NEW PROJECT	HARDWARE DEVELOPED IN PARALLEL	STATE-OF-THE-ART ADVANCEMENT	

12. OPERATING ENVIRONMENT
(Check appropriate box to explain in what environment software is going to operate. Keep in mind this describes not so much the location of software, but considerations it must meet. For example, ground based software is considerably more difficult if it is to be used to control airborne or space operations.)

a. PRODUCTION CENTER - INTERNALLY DEVELOPED	c. MILITARY GROUND	e. COMMERCIAL AVIONICS	g. UNMANNED SPACE
b. PRODUCTION CENTER - CONTRACTED SOFTWARE	d. MILITARY MOBILE (Man or shipboard)	f. MIL - SPEC AVIONICS	h. MANNED SPACE

13. SYSTEM INTEGRATION AND TEST (For each subsystem, represented by a single table sheet, describe the relative level of engineering, programming and testing required to integrate the subsystem into the total unified software system.)

a. SIMPLE	b. ROUTINE	c. DIFFICULT	d. COMPLEX
-----------	------------	--------------	------------

14. ADD-ONS FOR CONTRACTOR (Enter the values added to cost to arrive at price to government.)

15. TARGET PRICE (Enter price charged to government, including G & A and FEE. If cost is entered instead, explain in COMMENTS section.)

COMMENTS (Explain anything else that would be helpful in analyzing this software system - who is doing the work; i.e., Contractor, Air Force, etc.)

HARDWARE PARAMETRIC DATA SHEET INSTRUCTIONS

These instructions are intended to assist contractor and government personnel in completing and utilizing the AFSC Form 2540, which is for collecting hardware parametric data. One AFSC Form 2540 should be completed for each specific assembled piece of equipment, referred to in the instructions as a Line Replaceable Unit (LEU), or as required in the Instructions to Offerors (ITO), Statement of Work (SOW), etc. It would be helpful to include a list of all LEUs and a schematic diagram showing how the LEUs are integrated, which comprise the deliverable end item system or subsystem. A separate sheet should be completed for integration and test for each subsystem/system.

Hardware Parametric Data Sheet Instructions

1. Name of unit - Enter name of the LEU or equipment being described.
2. Name of Contractor - Company/Name and division as it appears on the proposal and/or contract.
3. Work Breakdown Structure (WBS) element number(s) - Enter the WBS element number applicable to the LEU and its contents.
- 4a. Contract Line Item Number - Enter the contract line item number in which the specific LEU costs are included.
- 4b. Reference Technical Volume - Enter the technical volume title and volume number where the LEU is described.
- 5a. Quantity of the Unit in the Next Higher Assembly - Enter the number (quantity) of identical LEU's described on this form which will be integrated and tested in the next higher assembly (Subsystem/System).
- 5b. Name of Next Higher Assembly - Enter the name of the subsystem/system or equipment level of the next higher assembly, as stated in Block 5a.
6. Name of Subsystem or System - Enter the name of the completed hardware system being delivered to the Government.
7. Military Specification Required - If the military specification is known check the "yes" box and cite the MIL SPEC number as shown in the proposal or contract. If no, enter the general category of specification that will be used.
8. Special Environment Requirements - Check the appropriate boxes if radiation hardening or Tempest requirements exist. Explain all other extenuating environmental requirements which will affect the program in the remarks section (i.e. design/program problems such as stringent cost/schedule, technical reporting requirements, or waivers/stringent MIL

SPEC quality parts level).

9a. Source of Unit - Check the appropriate boxes. Manufactured in-house items describe hardware items manufactured in the particular division of the company. Check "Purchased" and "Custom Made" if the item is being newly designed and produced by a subcontractor or another division within the prime contractor. Check "Purchased" and "Off The Shelf" if it is a catalog item from a vendor.

9b. If Purchased or GFE - Enter the percent of modification required for Electronics and/or Structure for simple modifications only; i.e. Reroute of wiring, add Brackets, etc. (no new design, but indicate percentage against a total redesign, for the purchased or GFE equipment).

10. If Purchased - Enter the name of the vendor or division if within the prime contractor which is providing the equipment.

Prototype Unit Cost - The unit cost of any development models or prototypes to be built in the development phase of the contract.
Note: This is total development cost divided by the number of (PROTOS) and can include non-recurring engineering cost and documentation cost for the LEU.

Production Unit Cost - Enter the production unit cost based on the quantity and dollars as reflected in the proposal and/or contract.
Note: This is total production cost divided by the number of production units to be delivered (Quantity).

Escalation - Indicate if the dollars stated are constant year dollars (if so indicate the month and year), or if escalated dollars (provide the schedule of dollar expenditures for each year and the annual escalation rate used).

11a. Physical Description - Describe the specific piece of equipment/LEU for which the data is being supplied on this sheet. If drawings or schematics are attached, include dimensions. Use extra pages if needed. duplication of data that is described in other blocks on this form is not necessary.

11b. Functional Description - Describe how the unit is to be used, with which other units/LEUs it interfaces. Use extra pages if needed. duplication of data that is described in other blocks on this form is not necessary.

12a. Enclosure Construction - State the basic material being used and the thickness of the material and tolerances required over the length of the enclosure bracketry, PCB holders (pages) or drawers. Check appropriate processes.

12b. Discrete Structural/Mechanical Modules - Enter data as known for each piece of equipment. The intent is to separate descriptions of dissimilar structural/mechanical parts.

EXAMPLE OF 12b:

NAME OF MODULE	VOLUME (ft cube)	WEIGHT (lbs)	QTY/ ASSY	SOURCE		COST (\$)	YEAR
				% NEW DESIGN	FURCH		
ENCL	24.9	275	1			8220	1982
PAGE	.16	12	22	.4			
BACKPLANE	.12		2	.9			

13a. Name of other Units Interfacing with Unit - Enter names or WBS Numbers of other units/subsystems that will require integration and test with this unit.

EXAMPLE OF 13a:

All units that are part of the processor subsystem (Block 5b).

13b. Integration Requirements - Check the appropriate box that defines the level of difficulty for the mechanical and electronic integration and test efforts.

14. Other Applications of the Unit - If entirely a new LEU, so state. If not, indicate the other applications or usage and the total quantity that will be produced other than quantity required for this subsystem.

15. Unit Geometry and Weight - Enter the dimensions and total weight of the LEU/equipment which is being described on this form.

16. Method of Cooling - If cooling requirements exist for this LEU, describe the cooling equipment including weight and dimensions that may have been included in Block 12b.

17. Total Structural/Mechanical Weight - Enter the weight of all items considered to be structural/mechanical (enclosure, pages/drawers, backplanes, motors, transformers, etc).

18. Estimated Total Percent New Design of all Structural/Mechanical Components When estimating new design, this should relate to the number of new drawings required as a percent of the total drawings for the LEU, or the weight of new design items as a percent of the total structural weight.

19. Type of Electronics - Indicate the types of electronics, if required that will be used within this LEU.

20a. Electronic Description by Percentage of Content - Indicate in the table the percentage for each electronic type indicated in Block #19. The intent here is to break down by percentage the type of componentry and technology of the electronics. Also identify any new custom or semicustom chips that may be included to enhance the overall design, reliability, maintainability, or availability. The sum of the percentages for all types of componentry and technology must equal one (1). Describe the packaging of the circuits such as leadless chips.

CATEGORY GUIDELINE:	% OF GATES/CHIPS-	CATEGORY			
		<50 SSI	50-200 MSI	200-1000 LSI	>1000 VLSI

VERIC-CLOCK RATES >100 Mhz

20b. Printed Circuit Board Data - This data represents the finished board. Provide the information requested.

Total No. of Boards -Indicate total number of PCB's required for the LEU being described.
Avg. Board size (in) - Provide the average board size for all PCB's for this LEU.
Avg. No. Layers - Provide average number of layers for all PCB's for this LEU.
Avg. Board Weight - Provide average board weight for all PCB's for this LEU (Total LEU Weight = weight of structure + Avg Board weight * Total number of boards).

Unique Types - New - Provide the number of boards that will require new design.
Old - Provide the number of boards that are existing off the shelf and require no new design.
Mod - Provide the number of boards (Purchased or Old) that require some percent of new design or rework.

The sum of the new, old and mod may or may not equal the total number of boards in the deliverable LEU. When the sum of the unique types does not equal the total number of boards, this indicates that duplicate boards (Design Repeat) are being used in the LEU. If the sum of the unique boards equals the total number of boards, this indicates that no duplicate boards are being utilized. If the sum of the Unique Types of New boards equals the total number of boards this indicates 100% new design for electronics.

20c. Other Electronic Modules/Assemblies - Identify those assemblies that are not PCB's but are of an electronic nature: such as, an R.F. Stripline, MIC modules, or power supply converter.

21a. New or Custom Microcircuits Chips - Provide the chip information consistent with inputs for 20a. If purchased, give the cost in current year dollars or the year in which the purchase/estimate was made. The intent here is to identify the relatively high cost items which may be included in the design to gain other advantages in performance such as less weight, reliability, maintainability, or availability.

21b. Other Chip Data - Provide the specification source, design source, manufacturing source and type of packaging required.

22a. Scope of Design Effort - For all electronics and structural design efforts indicate the most applicable descriptor that reflects the design effort.

22b. Experience of the Design Team - For all electronic and structural design efforts indicate the most applicable descriptor that reflects the experience level of the engineering team that will be working on this LEU.

23. Unit Quantities and Schedules - Quantities and schedules entered in this block are for the LEU, and should be consistent with quantities and

schedules described in other volumes of the proposal. Describe yield problems in the Remarks section as required.

24a. Describe Production Processes - Check appropriate boxes that describe the manufacturing process. This should tie to the cost/technical volumes, statement of work and manufacturing plans. Cite references as required.

24b. Degree of Automation - In addition to checking the appropriate box, also state in the remarks section if the automation described is currently available or if must be procured.

25. Indicate Learning Curve - Describe the basis for the unit costs for estimating. Learning curve percentages described here should be consistent with those used in cost volumes.

26. Remarks - State all assumptions made in completing this sheet. Also indicate any special efforts, support, tooling or test equipment required which is not a deliverable item but required in support of engineering development or production. Electronic "USEVOL" and Design Repeat for structure should also be included in this block. Indicate if any special efforts or tasks must be completed by the Prime Contractor for purchased or subcontracted equipment. Examples include the following: System Design, Functional Analyses, Availability Search, Make/Buy Trade-Off, Specification Detail & Control, Request for Bids & Reviews, Modification Requirements, Vendor Follow, Witness Test, Formal Acceptance etc. Also indicate if the LRU must interface with a software program. If required indicate the complexity of the Hardware/Software Integration effort (Easy, Routine, Difficult, or Complex) and the amount of interface instructions.

SOFTWARE PARAMETRIC INFORMATION SHEET INSTRUCTIONS
ASD Form 169a/AFSC Form 2499

These instructions are intended to be used to assist contractor and government personnel in completing ASD Form 169a/AFSC Form 2499, which are used for collecting software parametric data. One form should be prepared for each major software module or subsystem comprising the total software system or package being delivered, or as required in the Instructions to Offerors (ITO), Statement of Work (SOW) etc. If any software effort is subcontracted, use separate sheets for each subcontracted subsystem or module. The last sheet for the total deliverable software system should be used to describe the total software system integration, checkout and test effort of all modules and subsystems if applicable. A flow chart showing each major subsystem/module and its relationships to the other modules/subsystems should be included.

1. Name - Enter the name of the preparer, job title, and telephone number including area code.
2. System Name and Contractor - Enter the name of the specific software system, subsystem or module for which the data is being entered on the sheet.
3. Work Breakdown Structure - Indicate the WBS elements used in the proposal, contract or RFP for which this sheet is being prepared. Also provide the contract line item covering the contract dollars for this software development effort.
4. Purpose/Mission/Environment - Describe the end use of the software program/system. Identify the hardware being used to run the software when operational. Provide specific references from the statement of work and technical volumes for this software effort.
5. Instruction - Enter the number of deliverable, executable machine level instructions for the software subsystem/module for which this form is being prepared. Comments and data declaration statements should be excluded from the number of instructions.
6. Programming Language - Define the higher order level (HOL) programming language being used; i.e. FORTRAN, JOVIAL, ADA.
7. Instruction Mix - Enter the percentage of the machine level instructions that relates to each category. The sum of the instruction percentage mix must sum to one (1).
8. Proportion of Instruction requiring New Effort - New design effort requires the percent of new design for each application category (block #7). New coding is the percent of new code required to complete that particular application category.
9. Schedule - Enter the dates for each phase for the software effort for

which this form is being prepared.

10. Utilization - Indicate the percent of machine capacity required or expected to be used in running the system software in terms of memory and cycle time.

11a. Complexity - Refers to the type of people, experience levels and familiarity with the software languages, applications and environment in which the software system must work.

11b. Environment - Review this particular software subsystem/module effort in terms of hardware and programming language required, the number of groups of people needing to interface, the number of offices/organizations involved and the dynamics of the customer's requirements.

12 Operating environment - Indicate the end use of the software system for which this sheet is being prepared i.e. Manned Space etc.

13. System Integration & Test - Indicate the type of effort required for integration and test, if required for this module, program/and or subsystem with other software modules, programs/and or subsystems which comprise the system.

14a. G & A - Provide the overall G & A rate used in the cost volume.

14b. Fee - Provide the overall fee rate used in the cost volume.

15. Target Price - Provide the target price for this software subsystem or module. The price should be consistent with the prices stated under this WBS element in the cost volume. This is a required input for purchased software.

16. Comments - Provide all assumptions used in completing this form. Also the following should be provided:

- Source lines of instructions - Hardware LRU that this software subsystem/module is integrated with and the difficulty of the hardware/software integration.
- If the software being described on this page is Purchased or Furnished.
- Additional information as required

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MISC

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	8. REP. REQ.	9. INPUT TYPE (A)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUBMITTAL	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)
1. 1023	2. SYSTEM SECURITY MANAGEMENT PLAN (SSMP) 3.	5. SOW PARA 3.12.6	6. 3246TW/TFP-	8. LY	9. D	10. ONE/R		12. BLK16	13. BLK16	14. 3246TW/TFP-1 1/0 AFDC/PER 1/0 ONLY AFDC/SP 1/0 AFDC/IN 1/0
16. REMARKS										
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 12: DUE 6 MONTHS ARO.</p> <p>BLK 13: CHANGES IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS.</p> <p>NOTE: THIS CDRL SUPERSEDES DI-R-3527/S-112-1.</p>										
PREPARED BY			DATE		APPROVED BY			DATE		
James R Green			30 AUG 1991		<i>[Signature]</i>			30 AUG 1991		

F33657-88-C-2093, P00017
 Attachment 10, Page 48 of 51

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MISC

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CDF (X)	9. INPUT TOTAC (X)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Regro Copies)
1. 1024	2. SECURITY VULNERABILITY ANALYSIS 3.	4. DI-MISC-80841/T	5. SOW PARA 3.12.6	6. 3246TW/TFP-	7. LT	8. D	9.	10. ONE/R	11.	12. BLK16	13. BLK16	14. 3246TW/TFP-1 AFDTC/PER AFDTC/EP AFDTC/IN
16. REMARKS												
<p>BLK 4: CONTRACTOR FORMAT ACCEPTABLE.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 12: INITIAL SUBMITTAL DUE 6 MONTHS ARO.</p> <p>BLK 13: CHANGES IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS.</p> <p>NOTE: THIS CDRL SUPERSEDES DI-R-3528/S-113-1.</p>												
											15. 3/0 TOTAL	
PREPARED BY <i>James R Green</i>				DATE 30 AUG 1991		APPROVED BY <i>Thomas R. [Signature]</i>				DATE 30 AUG 1991		

F33657-88-C-2093, P00017
Attachment 10, Page 49 of 57

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY CMAN

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. AD	9. INPUT (A) / OUTPUT (X)	10. FREQUENCY 11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUBMITTAL	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Spec Copies)						
1025	ENGINEERING CHANGE PROPOSAL (SHORT FORM) 3.	SOW PARA 3.7.3.1	3246TW/TFP-	LT	AD		ASREQ	BLK16		<table border="1"> <tr> <td>3246TW/TFP-1</td> <td>5/0</td> </tr> <tr> <td>AFDTC/PIR</td> <td>1/0</td> </tr> <tr> <td>FID/TTIV</td> <td>1/0</td> </tr> </table>	3246TW/TFP-1	5/0	AFDTC/PIR	1/0	FID/TTIV	1/0
3246TW/TFP-1	5/0															
AFDTC/PIR	1/0															
FID/TTIV	1/0															
<p>16. REMARKS</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLKS 10, 12 & 13: SUBMIT AS REQUIRED WITHIN 30 DAYS AFTER ACSN APPROVAL PER SOW PARAGRAPH 3.7.3.1.</p>																
										15. TOTAL						

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY Thomas R. [Signature]

DATE 30 AUG 1991

F33657-88-C-2093, P00017
 Attachment 10, Page 50 of 51

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR 1 TO EXHIBIT _____
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY CMAN

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Propo Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DD250 REQ	8. APP CLER (A)	9. INPUT POINT (X)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/EVENT ID
1. 1026	2. REQUEST FOR WAIVER 3.	6. 3246TW/TFP-	10. ASREQ	12. BLK16	14.	
4. DI-CMAN-80641	5. SOW PARA 3.7.3.2	7. LT	8. AD	9.	11.	13. BLK16
16. REMARKS						
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLKS 10, 12 & 13: AS REQUIRED BY MIL-STD-480B.</p>						
					15. 7/0	
					TOTAL	

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY Thomas R. King

DATE 30 AUG 1991

**Contractor Data Management System
Contract Data Requirements List
Table of Contents**

Program ID: RWB Contract No.: F33657-88-C-2093 System Item Name: RED
Contractor: Calspan

<u>Seq. No.</u>	<u>QPR</u>	<u>DID No./Title/Subtitle</u>	<u>SOW Paragraph</u>
A001	46TW/TSWW	DI-CMAN-80008A/T System/Segment Specification	SOW Para 3.1, 3.2, 3.3, 3.7.2.1
A002	46TW/TSWW	DI-CMAN-80534 System/Segment Design Document	SOW Para 3.1, 3.2, 3.3
A003	46TW/TSWW	DI-E-3102A Configuration Item Development Specification	SOW Para 3.1, 3.2, 3.3, 3.7.2.2
A004	46TW/TSWW	DI-CMAN-80643 Specification Change Notice (SCN)	SOW Para 3.7.3.3
A005	46TW/TSWW	DI-E-7031/T Drawings, Engineering and Associated Lists Level 2 Drawing Package	SOW Para 3.1, 3.2, 3.3, 3.8.2.1
A006	46TW/TSWW	DI-MCCR-80012A/T Software Design Document	SOW Para 3.1, 3.2, 3.3
A007	46TW/TSWW	DI-MCCR-80014A/T Software Test Plan	SOW Para 3.1, 3.2, 3.3, 3.15.3, 3.15.6
A008		This Item Deleted	
A009	46TW/TSWW	DI-MCCR-80018A Computer System Operator's Manual	SOW Para 3.8.2.3c
A010	46TW/TSWW	DI-MCCR-80019A Software User's Manual	SOW Para 3.8.2.3d
A011	46TW/TSWW	DI-MCCR-80021A Software Programmer's Manual	SOW Para 3.8.2.3b
A012	46TW/TSWW	DI-MCCR-80025A/T Software Requirements Specification	SOW Para 3.1, 3.2, 3.3, 3.7.2.2
A013	46TW/TSWW	DI-MCCR-80026A Interface Requirements Specification	SOW Para 3.1, 3.2, 3.3, 3.7.2.2
A014	46TW/TSWW	DI-MCCR-80027A/T Interface Design Document	SOW Para 3.1, 3.2, 3.3
A015	46TW/TSWW	DI-MISC-80072/T Program Parts Selection List (PPSL)	SOW Para 3.9.2.2, 3.9.2.3, 3.9.2.5

**Contractor Data Management System
Contract Data Requirements List
Table of Contents (Cont'd.)**

Program ID: RWB

Contract No.: F33657-88-C-2093
Contractor: Calspan

System Item Name: RED

<u>Seq. No.</u>	<u>OPR</u>	<u>DID No./Title/Subtitle</u>	<u>SOW Paragraph</u>
A016	46TW/TSWW	DI-A-5029/T Technical Report-Study/Services Contract	SOW Para 3.14.2, 3.14.3c
A017	46TW/TSWW	DI-S-30599 R&D Equipment Information Report	SOW Para 3.8.2.3a
A018	46TW/TSWW	DI-E-3132 Configuration Item Product Function Specification	SOW Para 3.1, 3.2, 3.3, 3.7.2.3
A019	46TW/TSWW	DI-MCCR-80015A/T Software Test Description	SOW Para 3.15.3, 3.15.6
A020	46TW/TSWW	DI-MCCR-80017A/T Software Test Report	SOW Para 3.15.3
A021	46TW/TSWW	DI-MCCR-80013A Version Description Document	SOW Para 3.1, 3.2, 3.3
A022	46TW/TSWW	DI-MCCR-80029A Software Product Specification	SOW Para 3.1, 3.2, 3.3, 3.7.2.3
A023	46TW/TSWW	DI-T-5329 Inspection and Test Reports	SOW Para 3.15.2, 3.15.4, 3.15.5, 3.15.7.1
A024	46TW/TSWW	DI-T-3709A/T Equipment Test Plan (Nonsystem) Simval Test Requirements	SOW Para 3.15.7.1
A025	46TW/TSWW	DI-NDTI-80603/T Test Procedures	Blk 16
A026	46TW/TSWW	DI-T-30714/T Master Test Plan/Program Test Plan	SOW Para 3.15.1
A027	46TW/TSWW	DI-ILSS-80134 Recommended Spare Parts List	SOW Para 3.9.2.7

Updated 11/30/94

Attachment 11 Addresses
REDCAP Upgrades
Contract F33657-88-C-2093

<u>New Code</u>	<u>Old Code</u>	<u>Address</u>
46TW/TSWW	3246TW/TFP-1	Air Force Development Test Center 401 W. Choctawhatchee Avenue, Suite 265 Eglin Air Force Base, FL 32542-5724
AFDTC/PKZ	AFDTC/PKR	Air Force Development Test Center 205 West D Avenue, Suite 428 Eglin Air Force Base, FL 32542-6864
NAIC/TANV	FTD/TTIEV	National Air Intelligence Center 4115 Hebble Creek Road, Suite 28 Wright-Patterson Air Force Base, OH 45433-5632
46TW/OL-AG	AFDTC/OL	General Dynamics Fort Worth Division Mail Zone 2162 P.O. Box 371 Fort Worth, TX 76101-0371
412TW/TSDE	6510TW/TSDE	Air Force Flight Test Center 195 East Popson Avenue Edwards Air Force Base, CA 93524-6842
Calspan	Calspan	Calspan Corporation REDCAP Simulator Facility 4455 Genesee Street Buffalo, NY 14225
WL/POPT	WL/POPT	Attn: Richard B. Neff WL/POPT Wright-Patterson Air Force Base, OH 45433-6563

CONTRACT: F33657-88-C-2093

THE FOLLOWING STATEMENTS REGARDING EXPORT DISTRIBUTION MUST APPEAR ON THE COVER OR TITLE PAGE OF EACH DOCUMENT SUBMITTED, INCLUDING THE FIRST SHEET OF EACH DRAWING, PER AFR 83-3. (THE DESTRUCTION NOTICE IS NOW AN OPTIONAL MARKING.)

DISTRIBUTION STATEMENT D

DISTRIBUTION AUTHORIZED TO THE DEPARTMENT OF DEFENSE AND DOD CONTRACTORS ONLY; CRITICAL TECHNOLOGY (DATE OF DOCUMENT). OTHER REQUESTS SHALL BE REFERRED TO THE AIR FORCE DEVELOPMENT TEST CENTER, 3246TW/TFP-1, EGLIN AFB, FL 32542-5000.

INFORMATION SUBJECT TO EXPORT CONTROL LAW

"WARNING - THIS DOCUMENT CONTAINS TECHNICAL DATA WHOSE EXPORT IS RESTRICTED BY THE ARMS EXPORT CONTROL ACT (TITLE 22, U.S.C., SEC 2751 et seq.) OR THE EXPORT ADMINISTRATION ACT OF 1979, AS AMENDED, TITLE 50, U.S.C., APP. 2401, et seq. VIOLATIONS OF THESE EXPORT LAWS ARE SUBJECT TO SEVERE CRIMINAL PENALTIES. DISSEMINATE IN ACCORDANCE WITH THE PROVISIONS OF DOD DIRECTIVE 5230.25."

DESTRUCTION NOTICE (OPTIONAL)

FOR CLASSIFIED DOCUMENTS, FOLLOW THE PROCEDURES IN DOD 5220.22-M, INDUSTRIAL SECURITY MANUAL, SECTION II-19 OR DOD 5200.1-R, INFORMATION SECURITY PROGRAM REGULATION, CHAPTER IX. FOR UNCLASSIFIED, LIMITED DOCUMENTS, DESTROY BY ANY METHOD THAT WILL PREVENT DISCLOSURE OF CONTENTS OR RECONSTRUCTION OF THE DOCUMENT.

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY CMAN

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)																				
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DDCSO REQ	8. App OFF (A)	9. INPUT POINT (A)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/EVENT ID																			
1. A001	2. SYSTEM/SEGMENT SPECIFICATION 3.	6. 3246TW/TFP-	10. BLK16	12. BLK16	14.																				
4. DI-CMAN-80008A/T	5. 3.7.2.1 SOW PARA 3.1, 3.2, 3.3,	7. LT	8. AD	9.	11.	13. BLK16																			
16. REMARKS																									
<p>BLK 4: USE BOUND # 1/2 BY 11 INCH BOND PAPER AND TAILOR DID AS FOLLOWS: INCLUDE "EFFICIENCY" IN PARAGRAPH 10.1.5.2.5.4. THE FOLLOWING PARAGRAPHS ARE NOT CONSIDERED APPLICABLE:</p> <table border="0"> <tr> <td>10.1.5.2.7,</td> <td>10.1.5.2.4,</td> <td>10.1.5.2.4.1,</td> <td>10.1.5.2.6,</td> </tr> <tr> <td>10.1.5.3.8,</td> <td>10.1.5.2.9,</td> <td>10.1.5.3.2,</td> <td>10.1.5.3.5,</td> </tr> <tr> <td>10.1.5.6.2,</td> <td>10.1.5.5,</td> <td>10.1.5.6,</td> <td>10.1.5.6.1,</td> </tr> <tr> <td>10.1.5.2.5.2</td> <td>10.1.5.11,</td> <td>10.1.5.3.4,</td> <td>10.1.5.2.5.1,</td> </tr> <tr> <td></td> <td>10.1.5.4,</td> <td>10.1.5.9,</td> <td>10.1.5.10</td> </tr> </table> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: SUBMIT FOR EACH SEGMENT.</p> <p>BLK 12: DUE WLT 30 DAYS AFTER THE APPLICABLE WORKING LEVEL SYSTEM DESIGN REVIEW (SDR). WORKING COPY TO BE SUBMITTED PRIOR TO WORKING LEVEL SDR.</p> <p>BLK 13: CHANGES IDENTIFIED BY THE CONTRACTOR/GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS. AFTER AUTHENTICATION, CHANGES SHALL BE SUBMITTED IAW SOW PARA 3.7.3.3.</p> <p>NOTE: AFTER AUTHENTICATION, REVISION REQUIRED IF 50% OF THE SPECIFICATION CHANGES OR 5 SCWS ARE INCORPORATED.</p>						10.1.5.2.7,	10.1.5.2.4,	10.1.5.2.4.1,	10.1.5.2.6,	10.1.5.3.8,	10.1.5.2.9,	10.1.5.3.2,	10.1.5.3.5,	10.1.5.6.2,	10.1.5.5,	10.1.5.6,	10.1.5.6.1,	10.1.5.2.5.2	10.1.5.11,	10.1.5.3.4,	10.1.5.2.5.1,		10.1.5.4,	10.1.5.9,	10.1.5.10
10.1.5.2.7,	10.1.5.2.4,	10.1.5.2.4.1,	10.1.5.2.6,																						
10.1.5.3.8,	10.1.5.2.9,	10.1.5.3.2,	10.1.5.3.5,																						
10.1.5.6.2,	10.1.5.5,	10.1.5.6,	10.1.5.6.1,																						
10.1.5.2.5.2	10.1.5.11,	10.1.5.3.4,	10.1.5.2.5.1,																						
	10.1.5.4,	10.1.5.9,	10.1.5.10																						
					15. TOTAL																				
PREPARED BY <u>James R Green</u>		DATE <u>30 AUG 1991</u>	APPROVED BY <u>Thomas R. [Signature]</u>		DATE <u>30 AUG 1991</u>																				

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY CMAN

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4.	5.	6. TECHNICAL OFFICE	7.	8. App CITE (S)	9. LIMIT POINT (S)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Paper Copies)
1. A002	2. SYSTEM/SEGMENT DESIGN DOCUMENT 3.	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. 3246TW/YFP-	7. DD250 REQ	8. LT	9. AD	10. BLK16	11.	12. BLK16	13. BLK16	14. APDC/PER 3246TW/YFP-1 FID/STLEV 6510 TW/ESR
		4. DI-CMAN-80534	5. SOW PARA 3.1, 3.2, 3.3									15. 5/0 TOTAL

16. REMARKS

BLK 4: PREPARE AND DELIVER ON (BOUND) 8 1/2 BY 11 INCH BOND PAPER.

BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.

BLK 10: SUBMIT FOR THE REDCAP SYSTEM.

BLK 12: SYSTEM DESIGN DOCUMENT DUE WLT 30 DAYS AFTER WORKING LEVEL SYSTEM DESIGN REVIEW (SDR).

BLK 13: CHANGES IDENTIFIED BY THE CONTRACTOR/GOVERNMENT SHALL BE INTERNALLY MAINTAINED (E.G. WITH PEN AND INK CHANGES) AND AVAILABLE FOR REVIEWS/AUDITS. UPDATED SYSTEM DESIGN DOCUMENT DUE NOT LATER THAN 30 DAYS AFTER THE FINAL AUDIT.

NOTE: UPDATE SECTION 7 OF THE SYSTEM DESIGN DOCUMENT (3500A305505) TO SATISFY THE REQUIREMENTS OF DID PARAGRAPH 10.1.9.

PREPARED BY James R Green DATE 30 AUG 1991 APPROVED BY Thomas R. Henry DATE 30 AUG 1991

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY E

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Address - Regular Copies/Prepro Copies)		
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DD250 REQ	8. APP CODE (A)	9. INPUT TO/AC (K)	11. AS OF DQTE	13. DATE OF SUBSEQUENT SUB/EVENT ID	
1. A003	2. CONFIGURATION ITEM DEVELOPMENT SPECIFICATION 3.	6. 3246TW/TFP-	10. BLK16	12. BLK16	14. 3246TW/TFP-1 4/0		
4. DI-E-3102A	5. 3.7.2.2 SOW PARA 3.1, 3.2, 3.3.	7. LT	8. AD	9.	11.	13. BLK16	
16. REMARKS							
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: SUBMIT FOR EACH HWCI.</p> <p>BLK 12: DUE NLT 30 DAYS BEFORE APPLICABLE PRELIMINARY DESIGN REVIEW FOR EACH HWCI.</p> <p>BLK 13: CHANGES IDENTIFIED BY THE CONTRACTOR/GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS. AFTER AUTHENTICATION CHANGES SHALL BE SUBMITTED IAW SOW PARAGRAPH 3.7.3.3.</p> <p>NOTE: AFTER AUTHENTICATION, REVISION REQUIRED IF 50% OF THE SPECIFICATION CHANGES OR 5 SCNs ARE INCORPORATED.</p> <p>NOTE: SIGNATURE PAGES FOR AUTHENTICATION SHALL BE SENT TO 3246 TW/TFP-1 UPON REQUEST.</p>							
15. 7/0 TOTAL							
PREPARED BY	<i>James R Green</i>	DATE	30 AUG 1991	APPROVED BY	<i>Thomas R King</i>	DATE	30 AUG 1991

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY E

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. App CODE (A)	9. INPUT DDC (X)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)
1. A005	2. DRAWINGS, ENGINEERING AND ASSOCIATED LISTS 3. LEVEL 2 DRAWING PACKAGE	4. DI-E-7031/T	5. 3.8.2.1 SOW PARA 3.1, 3.2, 3.3,	6. 3246TW/TFP-	7. SD	8. AD	9.	10. BLK16	11.	12. BLK16	13. BLK16	14. CALSPAN 3246TW/TFP-1 AFDTC/PER
16. REMARKS												
<p>BLK 4: SEE ATTACHED ORDERING DATA REQUIRED BY DOD-D-1000B, PARA 6.2.1 TAILORED AS ATTACHED.</p> <p>BLK 7: INSPECTION AT SOURCE(S) WILL BE ACCOMPLISHED BY THE TECHNICAL OFFICE. SUBMIT DD FORM 250 NLT 30 DAYS AFTER GOVERNMENT APPROVAL TO 3246 TW/TFP-1.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS. FINAL APPROVAL WILL BE GIVEN AFTER PCA ACTION ITEMS ARE COMPLETED.</p> <p>BLK 10: SUBMIT ONE SET FOR EACH SEGMENT.</p> <p>BLKS 12, 13 & 14: DRAWINGS SHALL BE AVAILABLE FOR REVIEW AT ALL REVIEWS AND AUDITS. LEVEL 2 DRAWINGS SHALL BE SUBMITTED AS FOLLOWS:</p> <p>DRAWING LIST TO BE DELIVERED TO 3246 TW/TFP-1 60 DAYS BEFORE AUDITS. SUBMIT UPDATED DRAWING LIST TO 3246 TW/TFP-1 AFTER COMPLETION (NLT 60 DAYS) OF LAST PCA.</p> <p>ORIGINAL MASTER DRAWINGS SHALL BE RETAINED AT CALSPAN AFTER APPROVAL.</p>												
PREPARED BY <i>James R Green</i>											15. 0/1 TOTAL	
DATE 30 AUG 1991				APPROVED BY <i>James R Green</i>				DATE 30 AUG 1991				

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Attachment to DI-E-7031/T
Ordering Data Per DOD-D-1000B, Para 6.2.1

- (a) A complete set of engineering design disclosure drawings for maintenance and manufacture shall be prepared in accordance with DOD-D-1000B (Drawings, Engineering Associated Lists), dated 28 Oct 1977 and Amendment 3 dated 13 May 1983.
- (b) Level 2 drawings are required.
- (c) The Contractor Design Activity name, Federal Supply Code for Manufacturers (FSCM) number and drawing number shall appear in the title block of each engineering drawing and parts list. All engineering drawings and parts lists shall be identified to the originating contract number. The contract number must appear within the document image as near the engineering data identification number as possible. In no case shall the contract number under which the data was prepared ever be obliterated, removed, or changed.
- (d) Government Design Activity drawing numbers are not applicable to this contract. When industry association or contractor design activity documents are referenced on a drawing and they duplicate Government documents (Federal, military, etc.) the Government document(s) shall be listed first on the drawing and the equivalent contractor document(s) enclosed in parenthesis. The equivalent contractor document need not be furnished. When a contractor design activity specification or standard is referenced on drawings and does not duplicate Government or industry association documents, the specification or standard shall disclose all design requirements imposed at initial procurements for the item covered and shall be furnished.
- (d)1. When Class I or II changes are made to items covered by engineering data of another design activity (such as GFE), new engineering data shall be prepared covering such changes with the new contractor's name, code, and document numbers assigned. Each such drawing shall be prepared as an "Altered Item Drawing" in accordance with DOD-STD-100C, Para 201.4.4.1.
- (e) Level 1 drawings shall not be delivered under this contract, but shall be available at all program reviews. Level 2 drawings shall be available for Air Force review at the Physical Configuration Audit (PCA).
- (f) DI-E-7031 is applicable to this data.
- (g) Metric dimensions shall not be used unless required to provide interface with other metric-dimensioned equipment. Where metric dimensions are used, equivalent U.S. dimensions shall be shown in parenthesis. (ANSI Y14.5)
- (h) Tailoring is not permitted beyond this attachment to DI-E-7031/T with the exception of the following: Regarding ANSI/IEEE STD 91-1984, "Graphic Symbols for Logic Functions", and IEEE STD 315-1975 (ANSI Y32.2-1975), "Graphic Symbols for Electrical and Electronics Diagrams"; symbols may be in contractor format provided they are explained in a drawing legend or note such that their intent and interpretation are clear and unambiguous.
- (i) Company standards are acceptable, provided they meet the requirements of MIL-STD-143, "Standards and Specifications, Order of Precedence for the Selection of" and DOD-D-1000B, Para 3.7.1 and 3.8.
- (i)1. All contractor's engineering drawings and specifications previously submitted to the Government shall not be resubmitted, unless they have been revised or redrawn since the last submittal. (The data shall never contain more than two contract numbers.)

(i)2. All engineering drawings, associated lists, and referenced documents shall be in the English language and angle projection shall be used.

(j) Parts lists and wire lists shall be prepared IAW DOD-STD-100C, Chapter 600. Parts and wire lists shall be prepared at an assembly level where repair of the hardware will occur.

(k) Drawing assembly level for preparation of associated lists will be at the contractor's option.

(l) The Mono-Detail drawing system is optional.

(m) Selection of types of engineering drawings shall be IAW company standards.

(n) Control Drawings shall be prepared for vendor/commercial items not covered by Government or nationally recognized industry association specifications and standards.

(n)1. As an option to preparation of control drawings, the contractor may provide engineering data for commercial items (items not developed at Government expense/not developed as a result of this procurement) in conformance with the following:

(1) By referencing on the assembly drawing to which the item applies:

(a) The actual manufacturer's part (catalog) number and Federal Supply Code for Manufacturers (FSCM) when such is adequate for procurement.

(b) For simple, standard hardware items, a physical description (form, fit, and function) when such is adequate for procurement of the item (i.e., 60-watt light bulb, 8-32 steel nut).

(2) When the item cannot be identified by either of the methods cited above, a control drawing shall be prepared.

(c) Parts lists are preferred to be an integral part of the engineering drawings, but they may be prepared as separate lists.

(p) Contractor's existing drawing format is acceptable (providing it is IAW ANSI Y14.1 and DOD-D-10008, para 3.3.2).

(q) One set of reproductions shall be available for Air Force review at all program reviews, as well as at the Physical Configuration Audit (PCA). These reproductions shall conform to the legibility and contrast requirements of MIL-D-5480. Printed wiring artwork shall be actual size master patterns on stable base litho-panchromatic film. Other undimensioned data shall be IAW MIL-D-8510, Type II.

(r) Microfilm is not required.

(s) Delivery of original drawings and undimensioned drawings is required.

(t) Special packaging of originals is not applicable.

(u) Delivery of drawings, lists, and supporting documents shall be IAW the CDRL.

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MCCR

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DESO REQ	8. APP CITE (S)	9. INPUT POINT (S)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Paper Copies)
1. A006	2. SOFTWARE DESIGN DOCUMENT 3.	4. DI-MCCR-80012A/T	5. SOW PARA 3.1, 3.2, 3.3	6. 3246TW/TFP-1	7. LT	8. AD	9.	10. BLK16	11.	12. BLK16	13. BLK16	14. 3246TW/TFP-1 230 6/17/94
16. REMARKS												15. TOTAL
<p>BLK 4: DOCUMENT SHALL BE PREPARED AND DELIVERED ON BOND 8 1/2 BY 11 INCH BOND PAPER. DEFER 10.1.6, 10.1.7, AND 10.1.8 UNTIL PHASE II. AS PROVIDED BY DID PARAGRAPH 10.1b:</p> <ul style="list-style-type: none"> - 10.1.7a REQUIREMENTS MAY BE INCORPORATED IN THE PDL, - 10.1.7b REQUIREMENTS MAY BE INCORPORATED BY REFERENCE TO THE RELVANT INTERFACES/MESSAGES IN THE INTERFACE DESIGN DOCUMENT (IDD), - 10.1.8.2 REQUIREMENTS MAY BE INCORPORATED IN THE PDL. <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: SUBMIT FOR EACH CSCI IAW PARAGRAPH 7.3 OF DID.</p> <p>BLKS 12 & 13: DUE 30 DAYS BEFORE APPLICABLE PRELIMINARY DESIGN REVIEW (PDR) AND CRITICAL DESIGN REVIEW (CDR) FOR EACH CSCI. CHANGES IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS VIA CHANGE PAGES.</p>												5/0
PREPARED BY <u>James A Green</u>												DATE
DATE <u>30 AUG 1991</u>												APPROVED BY
APPROVED BY <u>Thomas R. [Signature]</u>												DATE
												<u>30 AUG 1991</u>

Chg Letter
 MAP/CO
 6/17/94

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY M

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	5. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Papero Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DD250 REQ	8. App COPIES (A)	9. LIMIT TO/AC (B)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/EVENT ID
1. A008	2. THIS ITEM DELETED 3.	6.		10.	12.	14.
4.	5.	7.	8.	9.	11.	13.
16. REMARKS						15. TOTAL
PREPARED BY <u>James R Green</u>		DATE <u>30 AUG 1991</u>	APPROVED BY <u>[Signature]</u>		DATE <u>30 AUG 1991</u>	

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MCCR

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CLK (A)	9. INPUT DOWNS (X)	10. FREQUENCY AS OF DATE	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Supro Copies)
1. 8009	2. COMPUTER SYSTEM OPERATOR'S MANUAL 3.	4. DI-MCCR-80018A	5. SOW PARA 3.8.2.3c	6. 3246TW/TFP-	7. LT	8. AD	9.	10. BLK16	11.	12. BLK16	13. BLK16	14. 3246TW/TFP-1 AFDRC/PER 2/8 LT ONLY
16. REMARKS												
<p>BLK 4: DOCUMENT SHALL BE PREPARED AND DELIVERED ON BOUND 8 1/2 BY 11 INCH BOND PAPER.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLKS 10, 12 AND 13: TO BE DETERMINED: ORDERING DEFERRED PER FAR 52.227-7027.</p>												
PREPARED BY <u>James R Green</u>											15. TOTAL 2/8	
DATE <u>30 AUG 1991</u>				APPROVED BY <u>[Signature]</u>						DATE <u>30 AUG 1991</u>		

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MCCR

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DESO REQ	8. APP CODE (A)	9. INPUT POINT (S)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/EVENT ID
1. A010	2. SOFTWARE USER'S MANUAL 3.	6. 3246TW/TFF-	10. BLK16	12. BLK16	14. 3246TW/TFF-1 2/0	
4. DI-MCCR-80819A	5. SOW PARA 3.8.2.3d	7. LT	8. AD	9.	11.	13. BLK16
16. REMARKS						
<p>BLK 4: DOCUMENT SHALL BE PREPARED AND DELIVERED ON BOUND 8 1/2 BY 11 INCH BOND PAPER.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLKS 10, 12 AND 13: TO BE DETERMINED: ORDERING DEFERRED PER FAR 52.227-7027.</p>						
					15. 2/0 TOTAL	
PREPARED BY <i>James R Green</i>		DATE 30 AUG 1991		APPROVED BY <i>Thomas R. [Signature]</i>		
				DATE 30 AUG 1991		

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MCCR

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CODE (A)	9. INPUT DOLAC (X)	10. FREQUENCY 11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Regro Copies)
1.	2. SOFTWARE PROGRAMMER'S MANUAL 3.	4. A011	5. SOW PARA 3.0.2.3b	6. 3246TW/TFF-	7. DD	8. AD	9.	10. BLK16	12. BLK16	13. BLK16	14. 3246TW/TFF-1 2/0 AFDTC/PER LIT ONLY
16. REMARKS											
<p>BLK 4: DOCUMENT SHALL BE PREPARED AND DELIVERED ON BOUND 8 1/2 BY 11 INCH BOND PAPER.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLKS: 10, 12, & 13: TO BE DETERMINED. ORDERING DEFERRED PER FAR 52.227-7027.</p>											
PREPARED BY <i>James R Green</i>				DATE 30 AUG 1991		APPROVED BY <i>Thomas R. King</i>				DATE 30 AUG 1991	
										15. TOTAL	2/0

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CONTRACTOR DATA REQUIREMENT LIST									
ATCH NR _____ TO EXHIBIT <u>A</u>				CATEGORY <u>MCCR</u>			SYSTEM/ITEM <u>REDCAP SYSTEM</u>		
TO CONTRACTOR/PR <u>F33657-88-C-2093</u>							CONTRACTOR <u>CALSPAN</u>		
1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE			6. TECHNICAL OFFICE			10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Paper Copies)
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE			7. DECSO REQ	8. APP CITE (X)	9. INPUT POINT (X)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/SPEC ID	
1. A013	2. INTERFACE REQUIREMENTS SPECIFICATION 3.			6. 3246TW/TFP-			10. BLK16	12. BLK16	14. 3246TW/TFP-1
4. DI-MCCR-80026A	5. 3.7.2.2 SOW PARA 3.1, 3.2, 3.3,			7. LT	8. AD	9.	11.	13. BLK16	2-3/8 6/17/94
16. REMARKS									
<p>BLK 4: DOCUMENT SHALL BE PREPARED AND DELIVERED ON BOUND 8 1/2 BY 11 INCH BOND PAPER.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: SUBMIT FOR EACH SEGMENT.</p> <p>BLK 12: DUE WLT 30 DAYS AFTER APPLICABLE WORKING LEVEL SOFTWARE SPECIFICATION REVIEW FOR EACH SEGMENT. WORKING COPY TO BE SUBMITTED WLT 30 DAYS PRIOR TO SSR.</p> <p>BLK 13: CHANGES IDENTIFIED BY THE CONTRACTOR/GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS. AFTER AUTHENTICATION, CHANGES SHALL BE SUBMITTED IAW SOW PARA 3.7.3.3.</p> <p>NOTE: AFTER AUTHENTICATION, REVISION REQUIRED IF 50% OF THE SPECIFICATION CHANGES OR 5 SCNS ARE INCORPORATED.</p> <p>NOTE: NO FURTHER UPDATES AFTER 1 FEB 91 ARE REQUIRED FOR CDRL A013, EXCEPT FOR THE REMOTE INTERFACE LINES. (REFER TO CDRL A014.)</p>									
									15. 5/0 TOTAL
PREPARED BY <i>James R Green</i>				DATE 30 AUG 1991		APPROVED BY <i>Thomas R. [Signature]</i>			DATE 30 AUG 1991

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MCCR

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CODE (A)	9. INPUT DYNAMIC (M)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Prepro Copies)
1. A014	2. INTERFACE DESIGN DOCUMENT 3.	4. DI-MCCR-80027A/Y	5. SOW PARA 3.1, 3.2, 3.3	6. 3246TW/TFP-	7. LT	8. AD	9.	10. BLK16	11.	12. BLK16	13. BLK16	14. 3246TW/TFP-1 AFDTC/PER FED/TTEV 6510 TW/TSDR
16. REMARKS												
<p>BLK 4: DOCUMENT SHALL BE PREPARED AND DELIVERED ON BOUND 8 1/2 BY 11 INCH BOND PAPER. CONTRACTOR FORMAT ACCEPTABLE. TAILOR DID AS FOLLOWS: - 10.1.5.2.1 ITEMS c, d, g, i, j AND m ARE DELETED; - 10.1.5.2.2 CROSS-REFERENCE REQUIREMENTS ARE DELETED; AND - 10.1.5.2.4.1 IS DELETED. (LIST PROTOCOLS USED IN PARAGRAPH 10.1.5.2.4, HOWEVER.)</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: SUBMIT FOR THE REDCAP SYSTEM IN CONJUNCTION WITH DI-MCCR-80012A.</p> <p>BLKS 12 & 13: DUE 30 DAYS BEFORE APPLICABLE PRELIMINARY DESIGN REVIEW (PDR) AND CRITICAL DESIGN REVIEW (CDR). CHANGES IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS.</p>												
											15. 5/0	
											TOTAL	

Chg Letter
 MAP/CO
 6/17/94

PREPARED BY James A Green

DATE 30 AUG 1991

APPROVED BY Thomas R. Young

DATE 30 AUG 1991

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR TO EXHIBIT A
TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MISC

SYSTEM/ITEM REDCAP SYSTEM
CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CODE (A)	9. INPUT POLAC (X)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)
1. A015	2. PROGRAM PARTS SELECTION LIST (PPSL) 3.	4. DI-MISC-80072/T	5. 3.9.2.3, 3.9.2.5 SOW PARA 3.9.2.2,	6. 3246TW/TFP-1	7. LT	8. D	9.	10. ONE/R	11.	12. BLK16	13. BLK16	14. 3246TW/TFP-1 2/0 APDRC/PBR LT ONLY

16. REMARKS

BLK 4: CONTRACTOR FORMAT ACCEPTABLE. CONTRACTOR SHALL REFERENCE PARAGRAPH 10.3 AND 10.5 OF DID FOR CONTENT.

BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.

BLK 12: DUE NOT LATER THAN 30 DAYS PRIOR TO PDR.

BLK 13: CHANGES IDENTIFIED BY CONTRACTOR/GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS.

PREPARED BY James A Green DATE 30 AUG 1991 APPROVED BY Thomas R. Long DATE 30 AUG 1991

15. TOTAL 2/0

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY A

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Address - Regular Copies/Repro Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DI250 REQ	8. App Code (X)	9. INPUT PROC (X)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/SUBMIT ID
1. A016	2. TECHNICAL REPORT-STUDY/SERVICES CONTRACT 3.	6. 3246TW/TFP-	10. ASREQ	12. BLK16	14. 3246TW/TFP-1 2/0	
4. DI-A-5029/Y	5. SOW PARA 3.14.2, 3.14.3c	7. LT	8. AD	9.	11.	13. BLK16
16. REMARKS						
<p>BLK 4: CONTRACTOR FORMAT ACCEPTABLE.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: AS REQUIRED FOR SUBMITTALS OF THE REAL-TIME REMOTE INTERFACE STUDY AND THE SIMULATOR INTEGRATION STUDY REPORTS.</p> <p>BLKS 12 & 13: (DRAFT WORKING COPIES DUE 15 DAYS BEFORE THE RESPECTIVE FINAL PROGRAM REVIEW.) INITIAL SUBMITTAL DUE 30 DAYS AFTER THE RESPECTIVE FINAL PROGRAM REVIEW. REVISIONS AS REQUIRED DUE 30 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.</p>						
					15. TOTAL	
					4/0	

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY Thomas H. King

DATE 30 AUG 1991

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT A
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY S

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE			7. DD250 REQ	8. App COPE (X)	9. INPUT ROTAC (X)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Supro Copies)	
1. A017	2. R & D EQUIPMENT INFORMATION REPORT 3.	4. DI-S-30599	5. SOW PARA 3.8.2.3a	6. 3246TW/YFP-	7. LT	8. AD	9.		10. BLK16	11.	12. BLK16	13. BLK16	14.	3246TW/YFP-1	2/0
16. REMARKS															
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS. GOVERNMENT APPROVAL/DISAPPROVAL DUE WITHIN 75 DAYS OF SUBMITTAL.</p> <p>BLKS 10, 12, & 13: TO BE DETERMINED.</p> <p>ORDERING DEFERRED PER FAR 52.227-7027.</p>															
<p>PREPARED BY <u>James R Green</u> DATE <u>30 AUG 1991</u> APPROVED BY <u>Thomas R Roney</u> DATE <u>30 AUG 1991</u></p>															
														15. TOTAL	2/0

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT B
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY E

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	8. APP CODE (A)	9. INPUT POLAR (X)	10. FREQUENCY 11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUPPLEMENT ID	14. DISTRIBUTION AND ADDRESSES (Address - Regular Copies/Repro Copies)
1. A018	2. CONFIGURATION ITEM PRODUCT FUNCTION 3. SPECIFICATION	5. 3.7.2.3 SOW PARA 3.1, 3.2, 3.3,	6. 3246TW/TFP-			10. BLK16	12. BLK16	13. BLK16	14. Chg Letter MAP/CO 6/17/94
4. DI-E-3132			7. LT	8. AD	9.	11.	13. BLK16		AFDC/PR LT ONLY
16. REMARKS									
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: SUBMIT FOR EACH HARDWARE CONFIGURATION ITEM (HWCI).</p> <p>BLK 12: DUE NOT LATER THAN 15 DAYS BEFORE APPLICABLE CRITICAL DESIGN REVIEW (CDR) FOR EACH HWCI.</p> <p>BLK 13: CHANGES IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS. AFTER AUTHENTICATION, CHANGES SHALL BE SUBMITTED IAW SOW PARA 3.7.3.3.</p> <p>NOTE: SIGNATURE PAGES FOR AUTHENTICATION SHALL BE SENT TO 3246 TW/TFP-1 AFTER PCA. AUTHENTICATED SPECIFICATIONS SHALL BE DISTRIBUTED WITHIN 30 DAYS AFTER AUTHENTICATION.</p>									
								15. 5/0 TOTAL	

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY Sharon R. Hooy

DATE 30 AUG 1991

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT B
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MCCR

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CODE (X)	9. INPUT NOTAC (X)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)
1. A019	2. SOFTWARE TEST DESCRIPTION 3.			6. 3246TW/YFP-				10. BLK16		12. BLK16		
4. DI-MCCR-00015A/T			5. SOW PARA 3.15.3, 3.15.6	7. LY	8. D	9.		11.		13. BLK16		14. 3246TW/YFP-1 APDC/PER FID/TYEV
16. REMARKS												
<p>BLK 4: TAILOR DID AS PER ATTACHMENT.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: SUBMIT FOR EACH CSCI IN ACCORDANCE WITH DID PARA 7.3.</p> <p>BLK 12: FIRST INCREMENT DUE 15 DAYS BEFORE APPLICABLE CRITICAL DESIGN REVIEW (CDR).</p> <p>BLK 13: SECOND INCREMENT DUE 45 DAYS BEFORE APPLICABLE TEST READINESS REVIEW (TRR).</p> <p>CHARGES IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 15 DAYS.</p>												
											15. TOTAL	4/0
PREPARED BY <i>James R Crean</i>				DATE 30 AUG 1991				APPROVED BY <i>Thomas R. [Signature]</i>				DATE 30 AUG 1991

Chg Letter
 MAP/CO
 6/17/94

657-88-C-2093, P00017
 Attachment 11, Page 25 of 47

DATA ITEM DESCRIPTION

Form Approved
OMB No. 0700-0188

1. TITLE SOFTWARE TEST DESCRIPTION		2. IDENTIFICATION NUMBER DI-MCCR-80015A/T	
3. DESCRIPTION/PURPOSE 3.1 The Software Test Description (STD) contains the test cases and test procedures necessary to perform formal qualification testing of a Computer Software Configuration Item (CSCI) identified in the Software Test Plan (STP). <div style="text-align: right;">(continued on page 2)</div>			
4. APPROVAL DATE (YYMMDD) 880229	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR) EC	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
7. APPLICATION/INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format and content preparation instructions for data generated under work tasks described by paragraphs 4.3.4, 5.4.3, 5.8.3.1, and 5.7.3.3 of DOD-STD-2167A. 7.2 The Contract Data Requirements List should specify whether this document is to be prepared and delivered on bound 8 1/2 by 11 inch bond paper or electronic media. If electronic media is selected, the precise format must be specified. <div style="text-align: right;">(continued on page 2)</div>			
8. APPROVAL LIMITATION		9a. APPLICABLE FORMS	9b. AMSC NUMBER N4333
10. PREPARATION INSTRUCTIONS 10.1 Content and format instructions. Production of this document using automated techniques is encouraged. Specific content and format instructions for this document are identified below. a. <u>Response to tailoring instructions.</u> In the event that a paragraph or subparagraph has been tailored out, a statement to that effect shall be added directly following the heading of each such (sub)paragraph. If a paragraph and all of its subparagraphs are tailored out, only the highest level paragraph heading need be included. b. <u>Use of alternate presentation styles.</u> Charts, tables, matrices, or other presentation styles are acceptable when the information required by the paragraphs and subparagraphs of this DID can be made more readable. c. <u>Page numbering.</u> Each page prior to Section 1 shall be numbered in lower-case roman numerals beginning with page ii for the Table of Contents. Each page starting from Section 1 to the beginning of the appendix shall be consecutively numbered in arabic numerals. If the document is divided into volumes, each such volume shall restart the page numbering sequence. <div style="text-align: right;">(continued on page 2)</div>			
11. DISTRIBUTION STATEMENT DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.			

DI-MCCR-80015A/T

3. DESCRIPTION/PURPOSE (continued)

3.2 The STD enables the Government to assess the adequacy of the test cases and procedures to be performed during CSCI testing.

7. APPLICATION/INTERRELATIONSHIP (continued)

7.3 The STD is developed in two increments:

- (1) The test case descriptions and related information, section 4 (except subparagraphs 4.X.Y.6), are developed during Detailed Design.
- (2) The test procedures, subparagraphs 4.X.Y.6, and formal test preparations, section 3, are developed during CSC Integration and Testing.

7.4 This DID supersedes DI-MCCR-80015 and DI-MCCR-80016 dated 4 June 1985.

~~7.5 This DID should be used in conjunction with DI-MCCR-80014A, Software Test Plan.~~

10. PREPARATION INSTRUCTIONS (continued)

- d. Document control numbers. For hardcopy formats, this document may be printed on one or both sides of each page (single-sided/double-sided). All printed pages shall contain the document control number and the date of the document centered at the top of the page. Document control numbers shall include revision and volume identification as applicable.
- e. Multiple (sub)paragraphs. All paragraphs and subparagraphs starting with the phrase "This (sub)paragraph shall..." may be written as multiple subparagraphs to enhance readability. These subparagraphs shall be numbered sequentially.
- f. Identifiers. The letters "X" and "Y" serve as identifiers for a series of descriptions. For example, the subparagraphs described by 10.1.6.1 shall be structured as follows:
 - 4.1 (Name of the first formal qualification test)
 - 4.1.1 (Name of the first test case of the first test)
 - 4.1.1.1 (Test case name) requirements traceability
 - 4.1.1.2 (Test case name) initialization
 - 4.1.1.3 (Test case name) test inputs
 - 4.1.1.4 etc.
 - 4.1.2 (Name of the second test case of the first test)
 - 4.1.2.1 etc.
 - 4.2 (Name of the second formal qualification test)
 - 4.2.1 etc.

DI-MCCR-80015A/T

10. PREPARATION INSTRUCTIONS (continued)

g. Document structure. This document shall consist of the following:

- (1) Cover
- (2) Title page
- (3) Table of contents
- (4) Scope
- (5) Referenced documents
- (6) Formal qualification test preparations
- (7) Formal qualification test descriptions
- (8) Notes
- (9) Appendices.

10.1.1 Title page. The title page shall contain the information identified below in the indicated format:

[Document control number and date: Volume x of y (if multi-volume)]

[Rev. indicator: date of Rev.]

SOFTWARE TEST DESCRIPTION

FOR THE

[GSCI NAME]

OF

[SYSTEM NAME]

CONTRACT NO. [contract number]

CDRL SEQUENCE NO. [CDRL number]

Prepared for:

[Contracting Agency Name, department code]

Prepared by:

[contractor name and address]

10.1.2 Table of contents. This document shall contain a table of contents listing the title and page number of each titled paragraph and subparagraph. The table of contents shall then list the title and page number of each figure, table, and appendix, in that order.

DI-MCCR-80015A

10. PREPARATION INSTRUCTIONS (continued)

10.1.3 Scope. This section shall be numbered 1 and shall be divided into the following paragraphs.

10.1.3.1 Identification. This paragraph shall be numbered 1.1 and shall contain the approved identification number, title, and abbreviation, if applicable, of the system and the CSCI to which this STD applies.

10.1.3.2 System overview. This paragraph shall be numbered 1.2 and shall briefly state the purpose of the system and the CSCI to which this STD applies.

10.1.3.3 Document overview. This paragraph shall be numbered 1.3 and shall summarize the purpose and contents of this document.

10.1.4 Referenced documents. This section shall be numbered 2 and shall list by document number and title all documents referenced in this document. This section shall also identify the source for all documents not available through normal Government stocking activities.

10.1.5 Formal qualification test preparations. This section shall be numbered 3 and shall be divided into the following paragraphs and subparagraphs to describe the test schedule and pre-test procedures for each formal qualification test of the CSCI as identified in the Software Test Plan (STP).

10.1.5.1 (Test name and project-unique identifier). This paragraph shall be numbered 3X (beginning with 3.1), shall identify a formal qualification test by name and identifier, and shall be divided into the following subparagraphs to describe the test schedule and pre-test procedures for the test.

~~10.1.5.1.1 (Test name) schedule. This subparagraph shall be numbered 3X.1 (beginning with 3.1.1) and shall provide (either directly or by reference) the location and schedule for the following activities associated with the test, as applicable:~~

(see 10.1a)

- ~~a. Briefings~~
- ~~b. Pre-test activities (e.g., equipment and software preparation)~~
- ~~c. Test~~
- ~~d. Debriefings~~
- ~~e. Data reduction and analysis~~

10.1.5.1.2 (Test name) pre-test procedures. This subparagraph shall be numbered 3X.2 and shall be divided into the following subparagraphs to describe the preparation and setup for the test. When the information required duplicates information previously specified for another test, that information may be referenced rather than repeated.

10.1.5.1.2.1 Hardware preparation. This subparagraph shall be numbered 3X.2.1 and shall describe the procedures necessary to prepare the hardware for the test. Reference may be made to published operating manuals for these procedures. The following shall be provided, as applicable:

- a. The specific hardware to be used, identified by name and, if applicable, number.
- ~~b. Any switch settings and cabling necessary to connect the hardware. These shall be identified by name and location.~~
- c. One or more diagrams to show hardware, interconnecting control, and data paths configuration.
- ~~d. Precise step-by-step instructions for placing the hardware in a state of readiness.~~

Clarification: The detail in these procedures will be commensurate with the personnel who are familiar with the hardware used in the test.

DH-MCCR-80015A/T

10. PREPARATION INSTRUCTIONS (continued)

10.1.5.1.2.2 Software preparation. This subparagraph shall be numbered 3X.2.2 and shall describe the procedures and related information necessary to prepare the CSCI and support software for the test. Reference may be made to published software manuals for these procedures. ~~The following information shall be provided, as applicable:~~

- ~~a. The storage medium of the CSCI (e.g., magnetic tape, disks) and precise step-by-step instructions for loading the CSCI into the computer.~~
- ~~b. The storage medium of any support software (e.g., environment simulators, test drivers, data reduction programs, etc.) and precise step-by-step instructions for loading the support software.~~
- ~~c. When the support software is to be loaded (e.g., before the CSCI has been loaded, after a specific test case has been executed, etc.).~~
- ~~d. The instructions for CSCI and support software initialization that are common to more than one test case.~~

10.1.5.1.2.3 Other pre-test preparations. This subparagraph shall be numbered 3X.2.3 and shall describe any other pre-test preparations or procedures necessary to perform the test.

10.1.6 Formal qualification test descriptions. This section shall be numbered 4 and shall be divided into the following paragraphs and subparagraphs to identify the test cases, test procedures, and related information associated with each formal qualification test of the CSCI ~~identified in the Software Test Plan (STP).~~

10.1.6.1 (Test name and project-unique identifier). This paragraph shall be numbered 4X (beginning with 4.1) and shall identify a formal qualification test by name and project-unique identifier. The following subparagraphs shall provide the detailed test description for the test.

10.1.6.1.1 (Test case name and project-unique identifier). This subparagraph shall be numbered 4X.Y (beginning with 4.1.1), shall identify a test case by name and project-unique identifier, state its purpose, and provide a brief description. The following subparagraphs shall provide a detailed description of the test case.

10.1.6.1.1.1 (Test case name) requirements traceability. This subparagraph shall be numbered 4X.Y.1 (beginning with 4.1.1.1) and shall identify the engineering requirements in the Software Requirements Specification and the interface requirements in the Interface Requirements Specification that are addressed by the test case.

10.1.6.1.1.2 (Test case name) initialization. This subparagraph shall be numbered 4X.Y.2 and shall identify any prerequisite conditions that must be established prior to performing the test case. When the information required in this subparagraph duplicates information previously specified, that information may be referenced rather than repeated. The following considerations shall be discussed, as applicable:

- a. Hardware and software configuration
- b. Flags, initial breakpoints, pointers, control parameters, or initial data to be set/reset prior to test commencement
- c. Preset hardware conditions or electrical states necessary to run the test case

Clarification: The level of detail will be commensurate with personnel who are familiar with the CSCI and support software.

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10. PREPARATION INSTRUCTIONS (continued)

- d. Initial conditions to be used in making timing measurements
- e. Conditioning of the simulated environment
- f. Special instructions peculiar to the test case.

10.1.6.1.1.3 (Test case name) test inputs. This subparagraph shall be numbered 4.X.Y.3 and shall describe the test inputs necessary for the test case. The following shall be provided, as applicable:

- a. Name, purpose, and description (e.g., range of values, accuracy, etc.) of each test input
- b. Source of the test input and the method to be used for selecting the test input
- ~~c. Whether the test input is real or simulated~~
- d. Time or event sequence of the test input (e.g., in response to question Y, input 4.375).

10.1.6.1.1.4 (Test case name) expected test results. This subparagraph shall be numbered 4.X.Y.4 and shall identify all expected test results for the test case. Both intermediate and final test results shall be provided, as applicable.

10.1.6.1.1.5 (Test case name) criteria for evaluating results. This subparagraph shall be numbered 4.X.Y.5 and shall identify the criteria to be used for evaluating the intermediate and final results of the test case. When the information required in this subparagraph duplicates information previously specified, that information may be referenced in this subparagraph. For each test result, the following information shall be provided, as applicable:

- a. Accuracy requirements for the test result
- b. Allowable upper and lower bounds of the test result
- c. Maximum and minimum duration of the test, in terms of time or number of events, in order to obtain the test result
- d. Conditions under which the test result is inconclusive and re-testing is to be performed
- e. Severity of processing errors associated with the test result
- f. Additional criteria not mentioned above.

10.1.6.1.1.6 (Test case name) test procedure. This subparagraph shall be numbered 4.X.Y.6 and shall define the test procedure for the test case. The test procedure shall be defined as a series of individually numbered steps listed sequentially in the order in which the steps are to be performed. For convenience in document maintenance, the test procedure may be included as an appendix and referenced in this subparagraph. The following shall be provided for each test procedure, as applicable:

~~a. Test operator actions and equipment operation required for each step~~

- b. Expected result for each step
- c. Evaluation criteria for each step, as applicable

Clarification: The detail in these steps will be commensurate with an operator who is familiar with the operation and use of the software under test, the associated hardware and other elements in the test configuration.

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10. PREPARATION INSTRUCTIONS (continued)

- d. Actions to follow in the event of a program stop or indicated error
Approach
- e. Procedures to be used to reduce and analyze test results.

10.1.6.1.1.7 (Test case name) assumptions and constraints. This subparagraph shall be numbered 4.X.Y.7 and shall identify any assumptions made and constraints imposed in the description of the test case. If waivers or exceptions to specified limits and parameters are approved, they shall be identified and this subparagraph shall address their effects and impacts upon the test case.

10.1.7 Notes. This section shall be numbered 5 and shall contain any general information that aids in understanding this document (e.g., background information, glossary). This section shall include an alphabetical listing of all acronyms, abbreviations, and their meanings as used in this document.

10.1.8 Appendixes. Appendixes may be used to provide information published separately for convenience in document maintenance (e.g., charts, classified data). As applicable, each appendix shall be referenced in the main body of the document where the data would normally have been provided. Appendixes may be bound as separate documents for ease in handling. Appendixes shall be lettered alphabetically (A, B, etc.), and the paragraphs within each appendix be numbered as multiples of 10 (e.g., Appendix A, paragraph 10, 10.1, 10.2, 20, 20.1, 20.2, etc.). Pages within each appendix shall be numbered alpha-numerically as follows: Appendix A pages shall be numbered A-1, A-2, A-3, etc. Appendix B pages shall be numbered B-1, B-2, B-3, etc.

DATA ITEM DESCRIPTION		Form Approved OMB No. 0704-0188	
1. TITLE		2. IDENTIFICATION NUMBER	
SOFTWARE TEST REPORT		DI-MCCR-80017A/T	
3. DESCRIPTION/PURPOSE			
<p>3.1 The Software Test Report (STR) is a record of the formal qualification testing performed on a Computer Software Configuration Item (CSCI).</p> <p>3.2 The STR provides the Government with a permanent record of the formal qualification testing performed on a CSCI. (continued on page 2)</p>			
4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPRI)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
880229	EC		
7. APPLICATION/INTERRELATIONSHIP			
<p>7.1 This Data Item Description (DID) contains the format and content preparation instructions for data generated under the work task described by paragraph 5.7.3.2 of DOD-STD-2167A.</p> <p>7.2 The Contract Data Requirements List should specify whether this document is to be prepared and delivered on bound 8 1/2 by 11 inch bond paper or electronic media. If electronic media is selected, the precise format must be specified. (continued on page 2)</p>			
8. APPROVAL LIMITATION		9a. APPLICABLE FORMS	9b. AMSC NUMBER
			N4334
10. PREPARATION INSTRUCTIONS			
<p>10.1 Content and format instructions. Production of this report using automated techniques is encouraged. Specific content and format instructions for this report are identified below.</p> <p>a. <u>Response to tailoring instructions.</u> In the event that a paragraph or subparagraph has been tailored out, a statement to that effect shall be added directly following the heading of each such (sub)paragraph. If a paragraph and all of its subparagraphs are tailored out, only the highest level paragraph heading need be included.</p> <p>b. <u>Use of alternate presentation styles.</u> Charts, tables, matrices, or other presentation styles are acceptable when the information required by the paragraphs and subparagraphs of this DID can be made more readable.</p> <p>c. <u>Page numbering.</u> Each page prior to Section 1 shall be numbered in lower-case roman numerals beginning with page ii for the Table of Contents. Each page starting from Section 1 to the beginning of the appendixes shall be consecutively numbered in arabic numerals. If the document is divided into volumes, each such volume shall restart the page numbering sequence. (continued on page 2)</p>			
11. DISTRIBUTION STATEMENT			
<p>DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.</p>			

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3. DESCRIPTION/PURPOSE (continued)

3.3 The STR may be used by the contractor as a basis for re-testing of a CSCL.

7. APPLICATION/INTERRELATIONSHIP (continued)

7.3 The STR is used to record the results of one or more formal qualification tests defined in the Software Test Description (STD), DI-MCCR-80015A, for a CSCL.

7.4 The STR summarizes test discrepancies and references their corresponding problem/change reports.

7.5 This DID supersedes DI-MCCR-80017 dated 4 June 1985.

10. PREPARATION INSTRUCTIONS (continued)

d. Document control numbers. For hardcopy formats, this document may be printed on one or both sides of each page (single-sided/double-sided). All printed pages shall contain the document control number and the date of the document centered at the top of the page. Document control numbers shall include revision and volume identification as applicable.

e. Multiple (sub)paragraphs. All paragraphs and subparagraphs starting with the phrase "This (sub)paragraph shall..." may be written as multiple subparagraphs to enhance readability. These subparagraphs shall be numbered sequentially.

f. Identifiers. The letter "X" serves as an identifier for a series of descriptions. For example, the subparagraphs described by 10.1.5.1 shall be structured as follows:

- 3.1 (Name and identifier of the first qualification test).
 - 3.1.1 (Test name) summary.
 - 3.1.2 (Test name) test record.
- 3.2 (Name and identifier of the second qualification test).
 - 3.2.1 (Test name) summary.
 - 3.2.2 (Test name) test record.
- 3.3 etc.

g. Document structure. This document shall consist of the following:

- (1) Cover
- (2) Title page
- (3) Table of contents
- (4) Scope
- (5) Referenced documents
- (6) Test overview
- (7) Test results

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10. PREPARATION INSTRUCTIONS (continued)

- (8) CSCI evaluation and recommendations
- (9) Notes
- (10) Appendices.

10.1.1 Title page. The title page shall contain the information identified below in the indicated format:

[Document control number and date: Volume x of y (if multi-volume)]

[Rev. indicator: date of Rev.]

SOFTWARE TEST REPORT

FOR THE

[CSCI NAME]

OF

[SYSTEM NAME]

CONTRACT NO. *[contract number]*

CDRL SEQUENCE NO. *[CDRL number]*

Prepared for:

[Contracting Agency Name, department code]

Prepared by:

[contractor name and address]

10.1.2 Table of contents. This document shall contain a table of contents listing the title and page number of each titled paragraph and subparagraph. The table of contents shall then list the title and page number of each figure, table, and appendix, in that order.

10.1.3 Scope. This section shall be numbered 1 and shall be divided into the following paragraphs.

10.1.3.1 Identification. This paragraph shall be numbered 1.1 and shall contain the approved identification number, title, and abbreviation, if applicable, of the system and the CSCI to which this STR applies. In addition, this paragraph shall contain the name and number of each formal qualification test for which results are recorded in this report.

10.1.3.2 System overview. This paragraph shall be numbered 1.2 and shall state the purpose of the system and the CSCI to which this STR applies.

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10. PREPARATION INSTRUCTIONS (continued)

10.1.3.3 Document overview. This paragraph shall be numbered 1.3 and shall summarize the purpose and contents of this document.

10.1.4 Referenced documents. This section shall be numbered 2 and shall list by document number and title all documents referenced in this report. This section shall also identify the source for all documents not available through normal Government stocking activities.

10.1.5 Test overview. This section shall be numbered 3 and shall be divided into the following paragraphs and subparagraphs to describe the results of each formal qualification test covered by this report.

10.1.5.1 (Formal qualification test name and project-unique identifier). This paragraph shall be numbered 3.X (beginning with 3.1), shall identify a formal qualification test by name and number, and shall be divided into the following subparagraphs to provide an overview of the test results.

10.1.5.1.1 (Formal qualification test name) summary. This subparagraph shall be numbered 3.X.1 and shall summarize the results of the formal qualification test. The summary shall include the completion status of the test (i.e., success or failure). For failures, ~~the step of the test procedure where the failure occurred and an identification of the resulting problem report shall be included.~~ This information may be provided by reference to a test results summary table similar to Table L.

10.1.5.1.2 (Formal qualification test name) test record. This subparagraph shall be numbered 3.X.2 and shall present a chronological record of ~~all events relevant to test preparation, test performance, and analysis and interpretation of formal qualification test results. This paragraph may reference a test log that contains the chronological record of the conduct of the formal qualification test.~~ This subparagraph shall include the following information:

- a. The date(s), time(s) and location(s) of the test, as well as hardware and software configurations used for the test. The description of the test configuration shall include, when available, part number, model number, serial number, manufacturer, revision level, and calibration date of all hardware, and version number and name for the software components used. (kept)
- b. The date and time of each test-related activity, the identity of the individual(s) who performed the activity, and the identities of witnesses.
- ~~c. Any problems encountered and the specific step(s) of the test procedures associated with the problem, including the number of times an individual step in a procedure had to be repeated in attempting to correct a problem and the outcome of each attempt.~~
- ~~d. Back up points or test steps where tests were resumed for retesting.~~

10.1.5 Test results. This section shall be numbered 4 and shall be divided into the following paragraphs to describe the ~~detailed results for each formal qualification test.~~ (change)

10.1.5.1 (Formal qualification test name and project-unique identifier) test results. This paragraph shall be numbered 4.X (beginning with 4.1), shall identify a formal qualification test by name and project-unique identifier, and shall be divided into the following subparagraphs to describe the ~~detailed results for each test case of the formal qualification test.~~

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10. PREPARATION INSTRUCTIONS (continued)

TABLE I. Example of a test results summary table.

TEST A	SUCCESS	FAILURE/ ERRORS*	SOFTWARE PROBLEM REPORTS SUBMITTED	REMARKS
TEST CASE X	✓			
TEST CASE Y		STEP 6 X	PR-011** PR-012	NOT CRITICAL
TEST CASE Z		STEP 7 STEP 23 X	PR-086 PR-087	NEEDS IMMEDIATE ATTENTION
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•

* IF A TEST PRODUCES A FAILURE OR AN ERROR, THE STEP(S) DURING WHICH THE FAILURE/ERROR OCCURRED SHALL BE RECORDED. (changed)

** PR = PROBLEM REPORT

10.1.9 Appendices. Appendices may be used to provide information published separately for convenience in document maintenance (e.g., charts, classified data). As applicable, each appendix shall be referenced in the main body of the document where the data would normally have been provided. Appendices may be bound as separate documents for ease in handling. Appendices shall be lettered alphabetically (A, B, etc.), and the paragraphs within each appendix be numbered as multiples of 10 (e.g., Appendix A, paragraph 10, 10.1, 10.2, 20, 20.1, 20.2, etc.). Pages within each appendix shall be numbered alpha-numerically as follows: Appendix A pages shall be numbered A-1, A-2, A-3, etc. Appendix B pages shall be numbered B-1, B-2, B-3, etc.

10.1.8 Notes. This section shall be numbered 8 and shall contain any general information that aids in understanding this document (e.g., background information, glossary). This section shall include an alphabetical listing of all acronyms, abbreviations, and their meanings as used in this document.

10.1.7.2 Recommended improvements. This paragraph shall be numbered 5.2 and shall provide any recommended improvements in the design, operation, or testing of the CSCI. A discussion of each provided, this paragraph shall state "None."

- ~~c. Describe the impact on CSCI and system performance.~~
- ~~b. Describe the impact on the CSCI and system design in order to correct it.~~
- ~~a. Provide a recommended solution/approach for correcting it.~~

~~each deficiency, limitation, or constraint, the analysis shall identify any remaining deficiencies, limitations, or constraints in the CSCI that were detected by the testing performed. Software problem/change reports may be used to provide deficiency information. For 10.1.7.1 CSCI evaluation. This paragraph shall be numbered 5.1 and shall provide an overall analysis of the capabilities of the CSCI demonstrated by the test results in this report. The analysis shall~~

10.1.7 CSCI evaluation and recommendations. This section shall be numbered 5 and shall be divided into the following paragraphs.

~~10.1.6.1.2 (Test case name) deviations from test procedure. This subparagraph shall be numbered 4.X.Y.2 and shall discuss in detail any deviations from the test procedure described in the corresponding Software Test Description (e.g., substitution of required equipment, changes to support software, procedural steps not followed, and schedule deviations). For each deviation, the rationale for allowing it and its impact on the validity of the test shall be provided.~~

~~10.1.6.1.1 (Test case name) test results. This subparagraph shall be numbered 4.X.Y.1 and shall present the test results for the test case. For each step of the test procedure executed, the result shall be recorded. Any anomalies or discrepancies of any kind encountered during the execution of the test case shall be described in the subparagraph. Applying information (e.g., memory dumps, record of registers, display diagrams) that may help to isolate and correct the cause of any discrepancies shall be included or referenced. The assessment of the test conductor as to the cause of each discrepancy and a means of correcting it may be provided.~~

10.1.6.1.1 (Test case name and project-unique identifier). This subparagraph shall be numbered 4.X.Y (beginning with 4.1.1), shall identify a test case by name and project-unique identifier, and shall be divided into the following subparagraphs to describe the detailed results for the test case.

10. PREPARATION INSTRUCTIONS (continued)

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CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT B
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MCCR

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. APP CITE (A)	9. ISSUE DATE (B)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUB/EVENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Speco Copies)
1. A021	2. VERSION DESCRIPTION DOCUMENT 3.	5.	6. 3246TW/TFP-	7. LT	8. D	9.	10. BLK16	11.	12. BLK16	13. BLK16	14. Chg Letter MAP/CO 6/17/94
4.	DI-MCCR-80013A	5. SOW PARA 3.1, 3.2, 3.3	7. LT	8. D	9.	10. BLK16	11.	12. BLK16	13. BLK16	14. 3246TW/TFP-1 M/ERC/P/ER F/ED/T/IEV 6510 TW/T/IDE	15. 5/0 TOTAL
16. REMARKS											
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: SUBMIT FOR EACH CSCI VERSION (INITIAL OR SUBSEQUENT) AS RELEASED.</p> <p>BLK 12: DUE WITH RELEASE OF INITIAL VERSION OF CSCI/SOFTWARE PRODUCT SPECIFICATION.</p> <p>BLK 13: DUE WITH RELEASE OF EACH SUBSEQUENT VERSION OF THE CSCI/SOFTWARE.</p>											

PREPARED BY James R Green

DATE 30 AUG 1991

APPROVED BY Thomas R. [Signature]

DATE 30 AUG 1991

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT B
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY MCCR

SYSTEM/ITEM REDCAP SYSTEM

CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	6. TECHNICAL OFFICE	10. FREQUENCY	12. DATE OF 1ST SUBMISSION	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Repro Copies)	
4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	7. DD250 REQ	8. APP CODE (A)	9. LIMIT TYPE (X)	11. AS OF DATE	13. DATE OF SUBSEQUENT SUB/EVENT ID
1. A022	2. SOFTWARE PRODUCT SPECIFICATION 3.	6. 3246TW/TFP-	10. BLK16	12. BLK16	14. Chg Letter MAP/CO 6/17/94	
4. DI-MCCR-80029A	5. 3.7.2.3 SOW PARA 3.1, 3.2, 3.3,	7. LT	8. AD	9.	11.	13. BLK16
16. REMARKS						
<p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS</p> <p>BLK 10: SUBMIT FOR EACH COMPUTER SOFTWARE CONFIGURATION ITEM (CSCI).</p> <p>BLK 12: DUE NOT LATER THAN TWO WEEKS BEFORE THE APPLICABLE FUNCTIONAL CONFIGURATION AUDIT (FCA) FOLLOWING SUCCESSFUL COMPLETION OF (SOFTWARE) FORMAL QUALIFICATION TESTING (FQT).</p> <p>BLK 13: CHANGES IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT SHALL BE SUBMITTED WITHIN 30 DAYS. AFTER AUTHENTICATION, CHANGES SHALL BE SUBMITTED IAW SOW PARA 3.7.3.3.</p> <p>NOTE: SIGNATURE PAGES FOR AUTHENTICATION SHALL BE SENT TO 3246 TW/TFP-1 AFTER FCA. AUTHENTICATED SPECIFICATIONS SHALL BE DISTRIBUTED WITHIN 30 DAYS AFTER AUTHENTICATION.</p>						
					15. 5/0 TOTAL	
PREPARED BY <i>James R Green</i>		DATE 30 AUG 1991	APPROVED BY <i>Thomas R. King</i>		DATE 30 AUG 1991	

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT B
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY T

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. DD250 REQ	8. App CITE (A)	9. DDPAC (B)	10. FREQUENCY 11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBMITTAL SUPERVISOR ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Supro Copies)
1. A023	2. INSPECTION AND TEST REPORTS 3.	4. DI-Y-5329	5. 3.15.5, 3.15.7.1. SOW PARA 3.15.2,	6. 3245TW/TFP-	7. LT	8. D	9.	10. BLK16	12. BLK16	13. BLK16	14. Chg Letter MAP/CO 6/17/94
16. REMARKS											14. 3246TW/TFP-1 AFDTC/PR FED/TTEV
BLK 4: CONTRACTOR FORMAT ACCEPTABLE.											14. 5/0
BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.											14. 1/0 ONLY
BLK 10: SUBMIT FOR EACH APPLICABLE HWCI FOR HARDWARE INSPECTIONS AND TESTING (e.g. FORMAL QUALIFICATION TEST (FQT), SYSTEM TEST, SINVAL TEST).											14. 2/0
BLK 12: DUE TWO WEEKS BEFORE APPLICABLE FUNCTIONAL CONFIGURATION AUDIT FOR FQT.											
BLK 13: DUE TWO WEEKS BEFORE APPLICABLE PHYSICAL CONFIGURATION AUDIT FOR SINVAL TESTING, OTHER SPECIAL TESTS OR RETESTING AND HARDWARE INSPECTIONS.											
NOTE: SINVAL TEST REPORT SHALL CONSIST OF TEST PROCEDURES AND TEST DATA ONLY. FTD/TTEV WILL PERFORM THE ANALYSIS OF THIS DATA.											
NOTE: CONTRACTOR FORMAT IS ACCEPTABLE FOR THE DID. SUBMITTALS MAY BE COMBINED WHEN SUBMITTED TWO WEEKS PRIOR TO THE AUDITS.											
											15. 5/0 TOTAL

PREPARED BY Jane R Green

DATE 0 AUG 1991

APPROVED BY [Signature]

DATE 30 AUG 1991

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Attachment 11, Page 42 of 47

CONTRACTOR DATA REQUIREMENT LIST

ATCH NR _____ TO EXHIBIT B
 TO CONTRACTOR/PR F33657-88-C-2093

CATEGORY BDTI

SYSTEM/ITEM REDCAP SYSTEM
 CONTRACTOR CALSPAN

1. SEQ. NUMBER	2. TITLE OR DESCRIPTION OF DATA 3. SUBTITLE	4. AUTHORITY (Data Item Number)	5. CONTRACT REFERENCE	6. TECHNICAL OFFICE	7. (DDSO NO)	8. APP CITE (A)	9. INPUT CITE (B)	10. FREQUENCY	11. AS OF DATE	12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUPPLEMENT ID	14. DISTRIBUTION AND ADDRESSES (Addresses - Regular Copies/Paper Copies)
1. A025	2. TEST PROCEDURES 3.	4. DI-BDTI-80603/T	5. BLK16	6. 3246TW/TFP-	7. LT	8. AD	9.	10. BLK16	11.	12. BLK16	13. BLK16	14. 3246TW/TFP-1 1/0 AFDPC/TFB 1/0 ONLY FTD/TTIV 2/0
16. REMARKS												
<p>BLK 4: EXCEPT FOR SINVAL RELATED PROCEDURES, PROCEDURES MAY BE TAILORED TO INDIVIDUALS FAMILIAR WITH THE REDCAP UPGRADES.</p> <p>BLK 5: SOW PARAGRAPHS 3.15.2, 3.15.5, 3.15.6, AND 3.15.7.1.</p> <p>BLK 8: SEE PAGE IMMEDIATELY PRECEDING FIRST CDRL FOR APPLICABLE STATEMENTS.</p> <p>BLK 10: SUBMIT FOR EACH APPLICABLE HARDWARE CONFIGURATION ITEM (HWCI).</p> <p>BLK 12: DUE 15 DAYS BEFORE APPLICABLE TEST READINESS REVIEW.</p> <p>BLK 13: SUBMIT CHANGES IDENTIFIED BY THE CONTRACTOR OR GOVERNMENT WITHIN 30 DAYS.</p>												
											15. 3/0 TOTAL	
PREPARED BY <i>James R Green</i>				DATE 30 AUG 1991				APPROVED BY <i>Thomas R. King</i>				DATE 30 AUG 1991

3657-88-C-2093, P00017
 Attachment 11, Page 45 of 47

12. PUBLIC RELEASE. Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release.

Direct Through (Specify): AFDTC/PA, Eglin AFB, FL 32542-5000 for other than SPECIAL ACCESS program information and SENSITIVE COMPARTMENTED INFORMATION. No public release is authorized for SPECIAL ACCESS program information and SENSITIVE COMPARTMENTED INFORMATION.

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
 * In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)

SEE CONTINUATION SHEET ATTACHED.

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)

Yes No

SEE CONTINUATION SHEET ATTACHED.

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.)

Yes No

SEE CONTINUATION SHEET ATTACHED.

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL MAUREEN A. PRETA	b. TITLE Contracting Officer	c. TELEPHONE (include Area Code) (904) 882-4141 DSN 872-4141												
d. ADDRESS (include Zip Code) AFDTC/PKRA Eglin AFB, FL 32542-5000	17. REQUIRED DISTRIBUTION AFDTC/SPK <u>9878 14 Apr 92</u>													
e. SIGNATURE <i>Maureen A. Preta</i>	<table border="1"> <tr> <td><input checked="" type="checkbox"/></td> <td>a. CONTRACTOR AFDTC/SPIC <u>mlc 13 Apr 92</u></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>b. SUBCONTRACTOR AFDTC/IND <u>SAR 14 APR 92</u></td> </tr> <tr> <td><input type="checkbox"/></td> <td>c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION</td> </tr> <tr> <td><input type="checkbox"/></td> <td>e. ADMINISTRATIVE CONTRACTING OFFICER AFDTC/INS <u>2614 APR 92</u></td> </tr> <tr> <td><input type="checkbox"/></td> <td>f. OTHERS AS NECESSARY 3200 SPTW/SCSS <u>date 7/20/14</u></td> </tr> </table>		<input checked="" type="checkbox"/>	a. CONTRACTOR AFDTC/SPIC <u>mlc 13 Apr 92</u>	<input checked="" type="checkbox"/>	b. SUBCONTRACTOR AFDTC/IND <u>SAR 14 APR 92</u>	<input type="checkbox"/>	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR	<input checked="" type="checkbox"/>	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION	<input type="checkbox"/>	e. ADMINISTRATIVE CONTRACTING OFFICER AFDTC/INS <u>2614 APR 92</u>	<input type="checkbox"/>	f. OTHERS AS NECESSARY 3200 SPTW/SCSS <u>date 7/20/14</u>
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<input type="checkbox"/>	e. ADMINISTRATIVE CONTRACTING OFFICER AFDTC/INS <u>2614 APR 92</u>													
<input type="checkbox"/>	f. OTHERS AS NECESSARY 3200 SPTW/SCSS <u>date 7/20/14</u>													

Item 13. SECURITY GUIDANCE:

Classification Guidance on information, hardware and equipment is provided in the Air Force Electronic Warfare Evaluation Simulator (AFEWES) and Air Force Real-Time Electro Magnetic Digitally Controlled Analyzer and Processor (REDCAP) Security Classification Guide, dated 5 June 1989 which has already been provided to the Contractor.

Item 10. a., 11. h., and 11. i.: COMSEC and TEMPEST requirements apply. For COMSEC and TEMPEST requirements and guidance see Attachment #1. For STU-III secure telephone requirements comply with ISM Chapter 13, Section 9. "See SCI Standard Instructions", Attachment #3.

Item 10. e. (1) & (2): This contract requires access and storage of SCI and Non-SCI intelligence materials. See Attachments #2 and #3 for special requirements.

Item 10. f. & i.: Special Access Requirements (SAR) procedures apply. User Agency Managers of Special Access programs will grant access when the need-to-know is required to accomplish the required efforts under this contract. See Attachment #4.

Item 10. g.: Comply with the NATO information requirements in the ISM, Chapter 11, Section 1.

Item 10. h.: Comply with the Foreign Government Information requirements in the ISM, Chapter 10, Section 3.

Item 10. j.: Safeguard "For Official Use Only" information provided under this contract as specified in ISM Chapter 13, Section 6.

Item 11. c.: The contractor will require access to classified source data up to and including Top Secret in support of this work effort. Any extracts or use of such data will require the contractor to apply derivative classifications and markings consistent with the source from which the extracts were made.

Item 11. d.: The contractor is required to provide adequate storage for classified hardware and materials up to and including the Top Secret level which are of such size and quantity that they cannot be safeguarded in an approved security container.

Item 11. j.: Comply with the OPSEC requirements in the ISM, Chapter 13, Section 3.

Item 11. k.: This contract requires the use of the Defense Courier Service. The contracting activity will request DCS services from the Commander, Defense Courier Service, ATTN: Operations Division, Fort George G. Meade, MD 20755-5370.

Item #14: This contract requires additional security requirements established for "SENSITIVE COMPARTMENTED INFORMATION" in accordance with DOD Directive TS-5105.21-M-2/USAFINTEL 201-1 AND DOD Directive TS-5105.21-M-3/USAFINTEL 201-4. Requirements for Non-SCI, TEMPEST and COMSEC materials are referenced in Item #13. Requirements for Special Access Materials are indicated in Attachment #4.

Item #15: AFDTC/IN Bldg 1, Rm 26, Eglin AFB, FL 32542-5000, has exclusive security responsibility for all SCI classified material released or developed under this contract and held within the contractor's SCIF. DIS is relieved of security inspection responsibilities for all SCI, Non-SCI, Special Access and LIMDIS classified materials released to or developed under this contract and held within the contractor's facility. User Agency Program/Project Managers will retain exclusive security oversight/inspection responsibilities for their Special Access Programs. AFDTC/SP, Eglin AFB, FL 32542-5000 has exclusive security oversight responsibilities for all Non-SCI classified materials excluding Special Access Materials released or developed under this contract and held within the contractor's facility.

"For the Disclosure of US Information to Foreign Interests comply with the requirements in the ISM, Chapter 10, Section 2."

"The contract monitor will submit information to AFDTC/INS requesting transmission of SCI access certification 5 days prior to contractor's travel."

"This contract requires approximately (18) SCI billets."

"SCI materials will be processed on an SCI accredited and approved system, located at the Calspan Corporation, 4455 Genesee St., Buffalo, N.Y. 14225-1967."

"A secure vault facility meeting the security requirements for storage of SENSITIVE COMPARTMENTED INFORMATION (SCI) has been established and (SCI)materials will be maintained only in such properly accredited facilities at the contractor location"

"Estimated completion of this contract is 95 Dec 31."

"Contract Monitor is Judith W. Sandelin, GM-14, 3246 TESTW/TFP, Eglin AFB, FL 32542-5000, Phone (904) 882-9354 or DSN 872-9354."

TEMPEST Security Requirements

a. The contractor shall ensure that compromising emanations (TEMPEST) conditions related to this contract are minimized.

b. The contractor shall provide countermeasure assessment data to the Contracting Officer (CO), with an information copy to 3200 SPTW/SCSS, Eglin AFB, FL 32542, in the form of a TEMPEST Countermeasures Assessment Request (TCAR). The TCAR shall provide only specific responses to the data required in paragraph c below; the contractor's standard security plan shall not be used as a "stand-alone" TCAR response. The contractor shall not submit a detailed facility analysis/assessment. The TCAR information will be used to complete a TEMPEST Countermeasures Assessment (TCA) of the contractor's facility to be performed by the government TEMPEST authority using current Air Force TEMPEST directives. TEMPEST is applied on a case-by-case basis and further information may be required to complete the TCA; should this be the case, the contractor shall provide this information to the contracting officer when requested. After evaluation of the TCAR by the government TEMPEST authority, additional TEMPEST requirements may be necessary. When changes to the information required in paragraph c below occur (including, but not limited to, relocation of equipment from the originally approved room, or increasing the classification level or volume of processing), the contractor shall submit to the CO a new TCAR, with an information copy to 3200 SPTW/SCSS, Eglin AFB, FL 32542, identifying the new configuration at least thirty (30) days before the changes occur; the contractor shall not commence SECRET or higher processing with the new configuration until receiving approval to do so from the CO.

c. TCAR Contents:

(1) SYSTEM DESCRIPTION:

(a) SYSTEM/FACILITY: Full name and address of company submitting request and RFP/contract number and duration. Also, provide a brief title identifying the overall system or facility (e.g. XYZ missile word processing system, ABC aircraft interactive graphics system, etc).

(b) LOCATION: Identify the address (including city, state, zip code, facility, building and room number) where the system and facility are located.

(2) RESPONSIBLE PERSONNEL:

(a) SECURITY OFFICER/MANAGER: Provide name, title,

office symbol and telephone number. Include the Company Appointed TEMPEST Authority (CATA) if applicable.

(b) SYSTEM CUSTODIAN: If different from c(2)(a) above, provide name, title, office symbol and telephone number.

(3) OPERATIONAL RISK: LEVEL/Amount of Classified: Identify the levels of classification (including specific designator, such as SCI, SAP, SIOP, etc) that will be processed, the estimated volume per day/month for each level expressed as a percent (of total material processed) for each level. If time-sharing a device, list classification(s), volume(s), and percentage(s) of use by other program(s). Volume may be described in data bytes/day, lines/day, pages/day or hours/day.

d. The prime contractor shall ensure that all subcontractors/vendors are included as part of their TCAR. Subcontractors/vendors are subject to comply with Air Force TEMPEST requirements.

e. Classified processing shall not begin until specific written approval/authorization, including approval for changes required pursuant to paragraph c above, is provided by the Contracting Officer.

COMSEC and/or Cryptographic Access

The contractor is governed by DOD 5220.22-S, COMSEC Supplement to the Industrial Security Manual. Access to COMSEC material/information is restricted to U.S. citizens holding final U.S. government clearances and is not releasable to personnel holding only a reciprocal clearance. Personnel requiring COMSEC access shall be briefed IAW DOD 5220.22-S. NOTE: The COMSEC/Crypto briefing applies only to the use and control of crypto equipment and specialized COMSEC publications. NACSIM/NACSEM documents are not considered COMSEC controlled material. Additionally, cryptographic information/equipment shall be retained in a contractor facility COMSEC account IAW DOD 5220.22-S. The Air Force program/project manager shall designate the number of personnel requiring cryptographic access. The number will be limited to the minimum necessary and will be on a strict need-to-know basis.

SPECIAL REQUIREMENTS FOR CLASSIFIED INTELLIGENCE

The AFDTC Director of Intelligence is the Senior Intelligence Officer (SIO). The SIO is authorized to approve release of intelligence material to US Contractors.

a. The administrative contracting officer shall ensure that all classified intelligence information is promptly returned through the program manager to AFDTC/IN, unless retention or destruction is authorized in writing by the originator of the intelligence or by AFDTC/IN.

b. Intelligence released to a contractor for one specific contract does not authorize its use for another contract.

c. The contractor must:

- Maintain accountability for all classified intelligence released in her or his custody (including CONFIDENTIAL information).

- If contractors require additional copies of intelligence, they must obtain the approval of the releasing agency. The contractor must not reproduce intelligence without the written permission of the releasing agency. If permission is granted, each copy is controlled in the same manner as the original. The only exception to reproducing classified intelligence in support of the contract, without approval of the releasing agency, is if the reproducible item(s) are to be incorporated in their entirety into the draft/final report or documents to be delivered to the government.

- Not destroy any intelligence without advance approval of the releasing agency.

- Contractors must agree that all intelligence released to them, all reproductions, and all other material generated (including authorized reproductions) is the property of the US Government and will be returned upon request of the sponsoring agency or expiration date of the contract, whichever comes first.

- Restrict access to only those individuals who possess the necessary security clearance and who are actually providing services under the contract. Further dissemination to other contractors, subcontractors, other government agencies, and private individuals or organizations is prohibited unless authorized in writing by the releasing agency.

- Not release intelligence material to foreign nationals or immigrant aliens whether or not they are also consultants, US contractors, or employees of the contractor, and regardless of the level of their security clearance, except with advance written permission from the releasing agency.

- Insure each employee having access to intelligence material is fully aware of the special security requirements for this material and maintains records in a manner that permits the contractor to furnish on demand, the names of individuals who have had access to the material in their custody.

STANDARD SCI INSTRUCTIONS

1. All SENSITIVE COMPARTMENTED INFORMATION (SCI) and material will be handled in accordance with special security requirements furnished by the responsible Special security Office designated in Item 15.

2. SENSITIVE COMPARTMENTED INFORMATION and material will not be released to contractor employees without specific release approval of the AFDTC Senior Intelligence Officer or the originator for the material when applicable, obtained through AFDTC/INS, based on prior approval and certification of "Need-to-Know" by the designated contract monitor listed below.

HALE, RICHARD J.	CAPT	3246 TESTW/TFP	(904) 882-9354
NAME	GRADE	OFFICE	TELEPHONE

3. Inquiries pertaining to classification guidance of SENSITIVE COMPARTMENTED INFORMATION will be directed to the responsible AFDTC contractor monitor. Any SCI or SCI derived material generated under this contract will be reviewed by the contract monitor for proper SCI classification prior to final publication and distribution. The responsible Special security Office designated in Item 15 will provide assistance as required.

4. Upon completion of this contract all SENSITIVE COMPARTMENTED INFORMATION material provided to or generated by the contractor will be returned to AFDTC/INS. If the material has been superseded or is no longer applicable, AFDTC/INS will provide disposition instructions to the Contractor Special Security Officer.

5. SENSITIVE COMPARTMENTED INFORMATION or material furnished in support of this contract remain the property of the DOD department, agency or command that releases it.

SPECIAL ACCESS REQUIREMENTS/PROCEDURES

1. The contractor will identify a Special Access security manager responsible for managing all Special Access programs. An appointment letter will be kept on file at the contractor's facility and provided to the appropriate Program Security Manager as programs require use of the facility.
2. All Special Access information and materials will be handled in accordance with special security requirements furnished by the User Agency Program /Project Special Security Manager.
3. Special Access material will not be released to contractor employees without specific release approval of the User Agency Program/Project Special Security Manager.
4. Inquiries pertaining to classification guidance for Special Access Programs and materials will be directed to the User Agency Program/Project Special Security Manager. Any Special Access program derived material generated under this contract will be reviewed by the User Agency Program/Project Special Security Manager for proper classification prior to final publication and distribution.
5. Upon completion of this contract all Special Access program information and materials provided to or generated by the contractor will be returned to the User Agency Program/Project Special Security Manager. If the material has been superseded or no longer applicable, the User Agency Program/Project special Security Manager will provide disposition instructions to the Contractor Special Security Officer.
6. Special Access Program information or materials furnished in support of this contract remain the property of the DOD department, agency or command that releases it.



DEPARTMENT OF DEFENSE CONTRACT SECURITY CLASSIFICATION SPECIFICATION <i>(The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)</i>				1. CLEARANCE AND SAFEGUARDING a. FACILITY CLEARANCE REQUIRED TOP SECRET F33657-88-C-2093 ATTACHMENT 13 b. LEVEL OF SAFEGUARDING REQUIRED TOP SECRET	
2. THIS SPECIFICATION IS FOR: (X and complete as applicable)			3. THIS SPECIFICATION IS: (X and complete as applicable)		
X	a. PRIME CONTRACT NUMBER F33657-88-C-2093		a. ORIGINAL (Complete date in all cases) 880913	Date (YYMMDD)	
	b. SUBCONTRACT NUMBER	X	b. REVISED (Supersedes all previous specs) Revision No. 3	Date (YYMMDD)	921021
	c. SOLICITATION OR OTHER NUMBER	Due Date (YYMMDD)	c. FINAL (Complete Item 5 in all cases)	Date (YYMMDD)	
4. IS THIS A FOLLOW-ON CONTRACT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes, complete the following: Classified material received or generated under <u>N/A</u> (Preceding Contract Number) is transferred to this follow-on contract.					
5. IS THIS A FINAL DD FORM 254? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes, complete the following: In response to the contractor's request dated <u>N/A</u> , retention of the identified classified material is authorized for the period of <u>N/A</u>					
6. CONTRACTOR (Include Commercial and Government Entity (CAGE) Code)					
a. NAME, ADDRESS, AND ZIP CODE		b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)		
Calspan Corporation 4455 Genesee Street Buffalo, NY 14225-1967		92325	Defense Investigative Service Director of Industrial Security 495 Summer Street Boston, MA 02210-2192		
7. SUBCONTRACTOR					
a. NAME, ADDRESS, AND ZIP CODE		b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)		
N/A		N/A	N/A		
8. ACTUAL PERFORMANCE					
a. LOCATION		b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)		
Same as Item 6.a.		N/A	N/A		
9. GENERAL IDENTIFICATION OF THIS PROCUREMENT REDCAP Simulator Upgrade Program.					
10. THIS CONTRACT WILL REQUIRE ACCESS TO:				11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION	YES	NO	a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY	YES	NO
b. RESTRICTED DATA	X		b. RECEIVE CLASSIFIED DOCUMENTS ONLY		X
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL	X	
d. FORMERLY RESTRICTED DATA		X	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE	X	
e. INTELLIGENCE INFORMATION:			e. PERFORM SERVICES ONLY		X
(1) Sensitive Compartmented Information (SCI)	X		f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		X
(2) Non-SCI	X		g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER	X	
f. SPECIAL ACCESS INFORMATION	X		h. REQUIRE A COMSEC ACCOUNT	X	
g. NATO INFORMATION	X		i. HAVE TEMPEST REQUIREMENTS	X	
h. FOREIGN GOVERNMENT INFORMATION	X		j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS	X	
i. LIMITED DISSEMINATION INFORMATION	X		k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE	X	
j. FOR OFFICIAL USE ONLY INFORMATION	X		l. OTHER (Specify)		
k. OTHER (Specify) Classified Intelligence Material	X		Have Classified ADP Processing	X	

12. PUBLIC RELEASE. Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release.

Direct Through (Specify): AFDTC/PA, 101 West D Ave., Suite 129, Eglin AFB, FL 32542-5498 for other than SPECIAL ACCESS PROGRAM INFORMATION and SENSITIVE COMPARTMENTED INFORMATION. No public release is authorized for SPECIAL ACCESS program information and SENSITIVE COMPARTMENTED INFORMATION.

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
 * In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)

SEE CONTINUATION SHEET ATTACHED.

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements established for this contract. (If Yes, identify the requirements.) Yes No

Identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed. This contract requires additional security requirements established for "Sensitive Compartmented Information" in accordance with DOD Directive TS-5105.21-M-2/USAFINTEL 201-1 and DOD Directive TS-5105.21-M-3/USAFINTEL 201-4. Requirements for Non-SCI, TEMPEST and COMSEC materials are referenced in Item 13. Requirements for Special Access Materials are indicated in Attachment #4.

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.) Yes No

AFDTC/INS, Senior Intelligence Officer, 101 West D Ave, Suite 117, Eglin AFB, FL 32542-5495, has exclusive security responsibility for all SCI classified material released or developed under this contract and held within the contractor's SCIF. User Agency Program/Project Managers have exclusive security oversight for all Special Access Program (SAP) material (SEE ATTACHED SHEET)

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL MAUREEN A. PRETA	b. TITLE CONTRACTING OFFICER	c. TELEPHONE (include Area Code) (904) 882-4141 DSN 872-4141
d. ADDRESS (Include Zip Code) AFDTC/PKRA 101 West D Ave., Suite 428 Eglin AFB, FL 32542-6864	17. REQUIRED DISTRIBUTION AFDTC/SPK 52 921023 <input checked="" type="checkbox"/> a. CONTRACTOR AFDTC/SPK 52 921023 <input type="checkbox"/> b. SUBCONTRACTOR AFDTC/IND <i>HWR Reinara 123-92</i> <input checked="" type="checkbox"/> c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR AFDTC/SPK 130152 <input type="checkbox"/> d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION AFDTC/INS 36238792 <input checked="" type="checkbox"/> e. ADMINISTRATIVE CONTRACTING OFFICER AFDTC/INS 36238792 <input type="checkbox"/> f. OTHERS AS NECESSARY 646 CCSG/SCDS <i>JM 26 Oct 92</i>	
e. SIGNATURE <i>Maureen A. Preta</i>	DATE: 4 Nov 92	

Continued:

Item 13. SECURITY GUIDANCE:

Classification Guidance on information, hardware and equipment is provided in the Air Force Electronic Warfare Evaluation Simulator (AFEWES) and Air Force Real-Time Electro Magnetic Digitally Controlled Analyzer and Processor (REDCAP) Security Classification Guide, dated 5 June 1989 which has already been provided to the Contractor.

Item 10. a., 11. h., and 11. i.: The contractor is governed by DoD 5220.22-S COMSEC supplement to the Industrial Security Manual. Access to COMSEC material/information is restricted to US citizens holding final US government clearance and is not releasable to persons holding only a reciprocal clearance. Brief persons requiring COMSEC access according to DoD 5220.22-S. Note: The COMSEC/ crypto briefing applies only to the use and control of crypto equipment and specialized COMSEC publications. NACSIM/ NACSEM documents are COMSEC-controlled material. Additionally, cryptographic information/equipment must be retained in a contractor facility COMSEC account according to DoD 5220.22-S. The Air Force program/project manager designates the number of personnel requiring cryptographic access. The number must be limited to the minimum necessary and will be on a strict need-to-know basis." For additional COMSEC and TEMPEST requirements and guidance see Attachment #1. For STU-III secure telephone requirements comply with ISM Chapter 13, Section 9. "See SCI Standard Instructions", Attachment #3.

Item 10. e. (1), (2) & 10. k. This contract requires access and storage of SCI and Non-SCI intelligence materials. See Attachments #2 and #3 for special requirements. Prior approval of the contracting activity is required for subcontracting. Access to intelligence information requires a final US Government clearance at the appropriate level.

Item 10. f. & i.: Special Access Requirements (SAR) procedures apply. User Agency Managers of Special Access programs will grant access when the need-to-know is required to accomplish the required efforts under this contract. See Attachment #4.

Item 10. g.: Contractor requires access to NATO classified information and must comply with DoD 5220.22-M, Chapter 11.

Item 10. h.: Comply with the Foreign Government Information requirements in the ISM, Chapter 10, Section 3.

Item 10. i.: Prior approval of the contracting activity is required for subcontracting.

Item 10. j.: Safeguard "For Official Use Only" information provided under this contract as specified in ISM Chapter 13, Section 6.

Item 11. c.: The contractor requires access to classified source data up to and including Top Secret in support of the work effort. Any extracts or use of such data requires the contractor to apply derivative classifications and markings consistent with the source documents. Use of "Multiple Sources" on the "classified by" line necessitates compliance with the ISM, paragraph 4-208, and use of bibliography.

Item 11. d.: The contractor must provide adequate storage for classified hardware and materials up to and including the Top Secret level which are of such size and quantity that they cannot be safeguarded in an approved storage container. Also the contractor must provide other special consideration necessary for performance on the contract.

Item 11. e.: The contractor must prepare and process a DD Form 1540 (Registration for Scientific and Technical Information Services) and DD Form 1541 (Facility Clearance Register). The contracting activity must be involved in certifying need-to-know to DTIC.

Item 11. j.: Comply with the OPSEC requirements in the ISM, Chapter 13, Section 3.

Item 11. k.: This contract requires the use of the Defense Courier Service. The contracting activity will request DCS services from the Commander, Defense Courier Service, ATTN: Operations Division, Fort George G. Meade, MD 20755-5370.

ITEM #15 Continued: released or developed under this contract. Defense Investigative Service (DIS) retains security oversight responsibility for all Non-SCI material and Non-SAP material released to or developed under this contract and held within the contractor's facility.

"For the Disclosure of US Information to Foreign Interests comply with the requirements in the ISM, Chapter 10, Section 2."

"The contract monitor will submit information to AFDTC/INS requesting transmission of SCI access certification 5 days prior to contractor's travel."

"This contract requires approximately (20) SCI billets."

"SCI materials will be processed on an SCI accredited and approved system, located at the Calspan Corporation, 4455 Genesee St., Buffalo, N.Y. 14225-1967."

"A secure vault facility meeting the security requirements for storage of SENSITIVE COMPARTMENTED INFORMATION (SCI) has been established and (SCI) materials will be maintained only in such properly accredited facilities at the contractor location."

"Estimated completion of this contract is 95 Oct 01."

"Contract Monitor is Robert Calderon, Lt Col, USAF, 46 TW/TFP, 401 West Choctawhatchee Ave, Suite 265, Eglin AFB FL 32542-5724, Phone (904) 882-3410 or DSN 872-3410".

TEMPEST Security Requirements

a. The contractor shall ensure that compromising emanations (TEMPEST) conditions related to this contract are minimized.

b. The contractor shall provide countermeasure assessment data to the Contracting Officer (CO), with an information copy to 646 CCSG/SCDS, Eglin AFB, FL 32542, in the form of a TEMPEST Countermeasures Assessment Request (TCAR). The TCAR shall provide only specific responses to the data required in paragraph c below; the contractor's standard security plan shall not be used as a "stand-alone" TCAR response. The contractor shall not submit a detailed facility analysis/assessment. The TCAR information will be used to complete a TEMPEST Countermeasures Assessment (TCA) of the contractor's facility to be performed by the government TEMPEST authority using current Air Force TEMPEST directives. TEMPEST is applied on a case-by-case basis and further information may be required to complete the TCA; should this be the case, the contractor shall provide this information to the contracting officer when requested. After evaluation of the TCAR by the government TEMPEST authority, additional TEMPEST requirements may be necessary. When changes to the information required in paragraph c below occur (including, but not limited to, relocation of equipment from the originally approved room, or increasing the classification level or volume of processing), the contractor shall submit to the CO a new TCAR, with an information copy to 646 CCSG/SCDS, Eglin AFB, FL 32542, identifying the new configuration at least thirty (30) days before the changes occur; the contractor shall not commence SECRET or higher processing with the new configuration until receiving approval to do so from the CO.

c. TCAR Contents:

(1) SYSTEM DESCRIPTION:

(a) SYSTEM/FACILITY: Full name and address of company submitting request and RFP/contract number and duration. Manufacturer, and model number of all electronic processing equipment that will be used for processing classified information. Also, provide a brief title identifying the overall system or facility (e.g. XYZ missile word processing system, ABC aircraft interactive graphics system, etc).

(b) LOCATION: Identify the address (including city, state, zip code, facility, building and room number) where the system and facility are located.

(2) RESPONSIBLE PERSONNEL:

(a) SECURITY OFFICER/MANAGER: Provide name, title,

office symbol and telephone number. Include the Company Appointed TEMPEST Authority (CATA) if applicable.

(b) SYSTEM CUSTODIAN: If different from c(2)(a) above, provide name, title, office symbol and telephone number.

(3) OPERATIONAL RISK: LEVEL/Amount of Classified: Identify the levels of classification (including specific designator, such as SCI, SAP, SIOP, etc) that will be processed, the estimated volume per day/month for each level expressed as a percent (of total material processed) for each level. If time-sharing a device, list classification(s), volume(s), and percentage(s) of use by other program(s). Volume may be described in data bytes/day, lines/day, pages/day or hours/day.

d. The prime contractor shall ensure that all subcontractors/vendors are included as part of their TCAR. Subcontractors/vendors are subject to comply with Air Force TEMPEST requirements.

e. Classified processing shall not begin until specific written approval/authorization, including approval for changes required pursuant to paragraph c above, is provided by the Contracting Officer.

COMSEC and/or Cryptographic Access

The contractor is governed by DOD 5220.22-S, COMSEC Supplement to the Industrial Security Manual. Access to COMSEC material/information is restricted to U.S. citizens holding final U.S. government clearances and is not releasable to personnel holding only a reciprocal clearance. Personnel requiring COMSEC access shall be briefed IAW DOD 5220.22-S. NOTE: The COMSEC/Crypto briefing applies only to the use and control of crypto equipment and specialized COMSEC publications. NACSIM/NACSEM documents are not considered COMSEC controlled material. Additionally, cryptographic information/equipment shall be retained in a contractor facility COMSEC account IAW DOD 5220.22-S. The Air Force program/project manager shall designate the number of personnel requiring cryptographic access. The number will be limited to the minimum necessary and will be on a strict need-to-know basis.

SPECIAL REQUIREMENTS FOR CLASSIFIED INTELLIGENCE

The AFDTIC Director of Intelligence is the Senior Intelligence Officer (SIO). The SIO is authorized to approve release of intelligence material to US Contractors.

a. The administrative contracting officer shall ensure that all classified intelligence information is promptly returned through the program manager to AFDTIC/IN, 101 West D Ave, Suite 117, Eglin AFB FL 32542-5495, unless retention or destruction is authorized in writing by the originator of the intelligence or by AFDTIC/IN.

b. Intelligence released to a contractor for one specific contract does not authorize its use for another contract.

c. The contractor must:

- Maintain accountability for all classified intelligence released in his or her custody (including CONFIDENTIAL information).

- If contractors require additional copies of intelligence, they must obtain the approval of the releasing agency. The contractor must not reproduce intelligence without the written permission of the releasing agency. If permission is granted, each copy is controlled in the same manner as the original. The only exception to reproducing classified intelligence in support of the contract, without approval of the releasing agency is if the reproducible item(s) are to be incorporated in their entirety into the draft/final report or documents to be delivered to the government.

- Not destroy any intelligence without advance approval of the releasing agency.

- Contractors must agree that all intelligence released to them, all reproductions, and all other material generated (including authorized reproductions) is the property of the US Government and will be returned upon request of the sponsoring agency or expiration date of the contract, whichever comes first.

- Restrict access to only those individuals who possess the necessary security clearance and who are actually providing services under the contract. Further dissemination to other contractors, subcontractors, other government agencies, and private individuals or organizations is prohibited unless authorized in writing by the releasing agency.

- Not release intelligence material to foreign nationals or immigrant aliens whether or not they are also consultants, US contractors, or employees of the contractor, and regardless of the level of their security clearance, except with advance written permission from the releasing agency.

- Insure each employee having access to intelligence material is fully aware of the special security requirements for this material and maintains records in a manner that permits the contractor to furnish on demand, the names of individuals who have had access to the material in their custody.

STANDARD SCI INSTRUCTIONS

1. All SENSITIVE COMPARTMENTED INFORMATION (SCI) and material will be handled in accordance with special security requirements furnished by the responsible Special security Office designated in Item 15.

2. SENSITIVE COMPARTMENTED INFORMATION and material will not be released to contractor employees without specific release approval of the AFDTIC Senior Intelligence Officer or the originator for the material when applicable, obtained through AFDTIC/INS, based on prior approval and certification of "Need-to-Know" by the designated contract monitor listed below.

HALE, RICHARD J.	MAJOR	46 TW/TFP	(904) 882-3410
NAME	GRADE	OFFICE	TELEPHONE

3. Inquiries pertaining to classification guidance of SENSITIVE COMPARTMENTED INFORMATION will be directed to the responsible AFDTIC contractor monitor. Any SCI or SCI derived material generated under this contract will be reviewed by the contract monitor for proper SCI classification prior to final publication and distribution. The responsible Special security Office designated in Item 15 will provide assistance as required.

4. Upon completion of this contract all SENSITIVE COMPARTMENTED INFORMATION material provided to or generated by the contractor will be returned to AFDTIC/INS. If the material has been superseded or is no longer applicable, AFDTIC/INS will provide disposition instructions to the Contractor Special Security Officer.

5. SENSITIVE COMPARTMENTED INFORMATION or material furnished in support of this contract remain the property of the DOD department, agency or command that releases it.

Mailing Address for Major Hale:

46 TW/TFP
401 West Choctawhatchee Ave, Suite 265
Eglin AFB, FL 32542-5724

SPECIAL ACCESS REQUIREMENTS/PROCEDURES

1. The contractor will identify a Special Access security manager responsible for managing all Special Access programs. An appointment letter will be kept on file at the contractor's facility and provided to the appropriate Program Security Manager as programs require use of the facility.
2. All Special Access information and materials will be handled in accordance with special security requirements furnished by the User Agency Program /Project Special Security Manager.
3. Special Access material will not be released to contractor employees without specific release approval of the User Agency Program/Project Special Security Manager.
4. Inquiries pertaining to classification guidance for Special Access Programs and materials will be directed to the User Agency Program/Project Special Security Manager. Any Special Access program derived material generated under this contract will be reviewed by the User Agency Program/Project Special Security Manager for proper classification prior to final publication and distribution.
5. Upon completion of this contract all Special Access program information and materials provided to or generated by the contractor will be returned to the User Agency Program/Project Special Security Manager. If the material has been superseded or no longer applicable, the User Agency Program/Project special Security Manager will provide disposition instructions to the Contractor Special Security Officer.
6. Special Access Program information or materials furnished in support of this contract remain the property of the DOD department, agency or command that releases it.



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER (AFMCC)
EGLIN AIR FORCE BASE, FLORIDA

25 January 1994

MEMORANDUM FOR ARVIN/CALSPAN CORPORATION
ATTENTION: MR. SCHMIT

FROM: AFDTTC/PKR
205 West D Avenue Suite 428
Eglin AFB FL 32542-6864

SUBJECT: Contract Change to F33657-88-C-2093 and F33657-90-D-2100
- ACTION MEMORANDUM

1. Please make the following changes when referencing the CDRL Distribution List, Distribution Statements, and correspondence to the subject contracts:

a. Change in Program Manager:

DELETE: Robert Calderon, Lt Col, USAF
REDCAP Program Manager

ADD: Armando V. Villagran, Lt Col, USAF
REDCAP Program Manager

b. Change in Program Office Symbol:

DELETE: 46 TW/TFP

ADD: 46 TW/TSWW

2. Address any questions to Maj Rick Hale, REDCAP Program Office, at (904) 882-3410.

A handwritten signature in black ink, reading "Maureen A. Preta", is located below the typed name.

MAUREEN A. PRETA
Contracting Officer



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER (AFMC)
EGLIN AIR FORCE BASE, FLORIDA

F33657-88-C-2093
ATTACHMENT 15

1506 202 07

MEMORANDUM FOR CALSPAN CORPORATION
ATTN: MR. ARNOLD B. SCHMIT
PO BOX 400
BUFFALO NY 14225

**IMPORTANT
CONTRACT DOCUMENT**

FROM: AFDTC/PKR
205 West D Avenue STE 428
Eglin AFB FL 32542-6864

SUBJECT: REDCAP Contract F33657-88-C-2093, Change of Mailing
Address and CDRL Distribution

1. The current mailing address for REDCAP documents for what was
46 TW/TFP is now:

46 TW/TSWW
ATTN: Lt Col Armando V. Villagran
401 W Choctawhatchee Avenue STE 265
Eglin AFB FL 32542-5724

2. The CDRL distribution to 46 TW/TSWW should now be reduced
from three copies of documents to two copies.

3. Questions may be directed to Major Richard Hale and/or
Mr. John Russell at (904) 882-3410.

Maureen A. Preta

MAUREEN A. PRETA
Contracting Officer

RECEIVED	
CONTRACTS DEPARTMENT	
JUN 20 1994	
MR. _____	
CC: _____	



DEPARTMENT OF THE AIR FORCE
 HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER (AFMC)
 EGLIN AIR FORCE BASE, FLORIDA

F33657-88-C-2093
 ATTACHMENT 16

21 Nov 94

MEMORANDUM FOR CALSPAN CORPORATION
 ATTN: Susan R. Schock
 4455 Genesee Street
 Buffalo NY 14225

FROM: AFDTC/PKZA
 205 West D Avenue, Suite 428
 Eglin AFB FL 32542-6864

SUBJECT: Contract F33657-88-C-2093, Eglin Address Changes

1. In response to your fax of 18 Nov 94 requesting information on correct street addresses for organizations at Eglin AFB on the mailing list for subject contract, the following information is provided:

a. The fill-in blanks on your list should read:

<u>OLD CODE</u>	<u>NEW CODE</u>
3246TW/TFS	46TW/TSTD 207 W D Avenue, Ste 125 Eglin AFB FL 32542-6864
AFDTC/IN	AFDTC/IN 101 W D Avenue, Ste 102 Eglin AFB FL 32542-6830
AFDTC/FMCI	DAO-DE FG/FS 205 W D Avenue, Ste 631 Eglin AFB FL 32542-6861
AFDTC/SP	AFDTC/AS 101 W D Avenue, Ste 14 Eglin AFB FL 32542-5491

b. Regarding the addressees for CDRL Item 1012 and 1013, delete both AFDTC/FMCI and 3246TW/TFS and replace with:

46TW/TSTB
 Attn: Ms Linda Kindurys
 207 W D Avenue, Ste 125
 Eglin AFB FL 32542-6848

2. If you need any further information, please call Ms Kathleen Miller at (904)882-4141 or fax to (904)882-5757.

Maureen A. Preta
MAUREEN A. PRETA
Contracting Officer

SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS
OR QUOTERS (cont'd)

percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

(b) Agreement. The offeror agrees to provide information relating to the above Representation as requested by the Contracting Officer and, when subparagraph (a)(1) or (a)(2) is answered affirmatively, to promptly submit to the Contracting Officer-

(1) A completed Standard Form 119, Statement of Contingent or Other Fees, (SF 119); or

(2) A signed statement indicating that the SF 119 was previously submitted to the same contracting office, including the date and applicable solicitation or contract number, and representing that the prior SF 119 applies to this offer or quotation.

52.215-6 TYPE OF BUSINESS ORGANIZATION (JUL 1987)

The offeror or quoter, by checking the applicable box, represents that ---

(a) It operates as a corporation incorporated under the laws of the State of Ohio, an individual, a partnership, a nonprofit organization, or a joint venture; or

(b) If the offeror or quoter is a foreign entity, it operates as an individual, a partnership, a nonprofit organization, a joint venture, or a corporation, registered for business in _____
(Country)

52.215-11 AUTHORIZED NEGOTIATORS (APR 1984)

The offeror or quoter represents that the following persons are authorized to negotiate on its behalf with the Government in connection with this request for proposals or quotations: (list names, titles, and telephone numbers of the authorized negotiators).

..... Mr. V. John Soron - Contracts Manager - (716) 631-6831

... Mr. Edward M. Weisbeck - Director of Contracts - (716) 631-6758

SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS
OR QUOTERS

A. 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (APR 1984)

This solicitation incorporates the following solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) SOLICITATION PROVISIONS

52.222-21 CERTIFICATION OF NONSEGREGATED FACILITIES (APR 1984)

II. DEPARTMENT OF DEFENSE SUPPLEMENT (48 CFR CHAPTER 2) SOLICITATION PROVISIONS

52.227-7028 REQUIREMENT FOR TECHNICAL DATA CERTIFICATION (APR 1988)

[In accordance with the above-referenced provision and DoD FAR Sup 27.473-4(a), the Offeror certifies that it has, has not or is, is not obligated to deliver to the Government under any contract or subcontract the same or substantially the same technical data with other than unlimited rights included in the Offer. If such data has been or will be delivered, the Offeror will identify in the spaces provided below: . .

(a) One such contract or subcontract including the place of delivery for the technical data covered therein -

(b) The limitation on the Government's right to use the data, including identification of the earliest date the limitation expires -

B. FAR Solicitation Provisions in Full Text

52.203-4 CONTINGENT FEE REPRESENTATION AND AGREEMENT (APR 1984)

(a) Representation. The offeror represents that, except for full-time bona fide employees working solely for the offeror, the offeror-

[Note: The offeror must check the appropriate boxes. For interpretation of the representation, including the term "bona fide employee," see Subpart 3.4 of the Federal Acquisition Regulation.]

(1) has, has not employed or retained any person or company to solicit or obtain this contract; and

(2) has, has not paid or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission,

SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS
OR QUOTERS (cont'd)

52.215-20 PLACE OF PERFORMANCE (APR 1984)

(a) The offeror or quoter, in the performance of any contract resulting from this solicitation, []intends, [X]does not intend (check applicable block) to use one or more plants or facilities located at a different address from the address of the offeror or quoter as indicated in this proposal or quotation.

(b) If the offeror or quoter checks "intends" in paragraph (a) above, it shall insert in the spaces provided below the required information:

Place of Performance (Street
Address, City, County, State,
Zip Code)

Name and Address of Owner
and Operator of the Plant or
Facility if Other than Offeror
or Quoter

-----	-----
-----	-----
-----	-----

52.219-1 SMALL BUSINESS CONCERN REPRESENTATION (MAY 1986)

The offeror represents and certifies as part of its offer that it []is, [X]is not a small business concern and that [] all, [X] not all end items to be furnished will be manufactured or produced by a small business concern in the United States, its territories or possessions, Puerto Rico, or the Trust Territory of the Pacific Islands. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the size standards in this solicitation.

52.219-3 WOMEN-OWNED SMALL BUSINESS REPRESENTATION (APR 1984)

(a) Representation. The offeror represents that it []is, [X]is not a women-owned small business concern.

(b) Definitions.

"Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominate in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria and size

SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS
OR QUOTERS (cont'd)

standards in 13 CFR 121.

"Women-owned," as used in this provision, means a small business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.

52.220-1 PREFERENCE FOR LABOR SURPLUS AREA CONCERNS (APR 1984)

(a) This acquisition is not set aside for labor surplus area (LSA) concerns. However, the offeror's status as such a concern may affect (1) entitlement to award in case of tie offers or (2) offer evaluation in accordance with the Buy American Act clause of this solicitation. In order to determine whether the offeror is entitled to a preference under (1) or (2) above, the offeror must identify, below, the LSA in which the costs to be incurred on account of manufacturing or production (by the offeror or the first-tier subcontractors) amount to more than 50 percent of the contract price.

.....
.....

(b) Failure to identify the locations as specified above will preclude consideration of the offeror as an LSA concern. If the offeror is awarded a contract as an LSA concern and would not have otherwise qualified for award, the offeror shall perform the contract or cause the contract to be performed in accordance with the obligations of an LSA concern.

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (APR 1984)

The offeror represents that-

(a) It []has, []has not participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114;

(b) It []has, []has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS
OR QUOTERS (cont'd)

52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)

The offeror represents that (a) it [] has developed and has on file, [] has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or (b) it [] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

52.223-1 CLEAN AIR AND WATER CERTIFICATION (APR 1984)

The Offeror certifies that-

(a) Any facility to be used in the performance of this proposed contract [] is, [] is not listed on the Environmental Protection Agency List of Violating Facilities;

(b) The Offeror will immediately notify the Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the Environmental Protection Agency, indicating that any facility that the Offeror proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and

(c) The Offeror will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

52.230-1 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION
(NATIONAL DEFENSE) (SEP 1987)

Note: This notice does not apply to small businesses or foreign governments. This notice is in four parts, identified by Roman numerals I through IV. Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

I. DISCLOSURE STATEMENT --- COST ACCOUNTING PRACTICES AND CERTIFICATION

(a) Any contract in excess of \$100,000 resulting from this solicitation, except contracts in which the price negotiated is based on (1) established catalog or market prices of commercial items sold in substantial quantities to the general public, or (2) prices set by law or regulation, will be subject to the requirements of Federal Acquisition Regulation (FAR) Subparts 30.3 and 30.4, except for those contracts which are exempt as specified in FAR







CALSPAN CORPORATION

ADVANCED TECHNOLOGY CENTER
P.O. Box 400, Buffalo, New York 14226 Tel: (716) 632 7500
Fax: (716) 631 6722

21 December 1994

AFDTC/PKZ
205 West D Avenue, Suite 428
Eglin AFB, FL 32542-6864

Attention: Ms. Maureen A. Preta
Contracting Officer

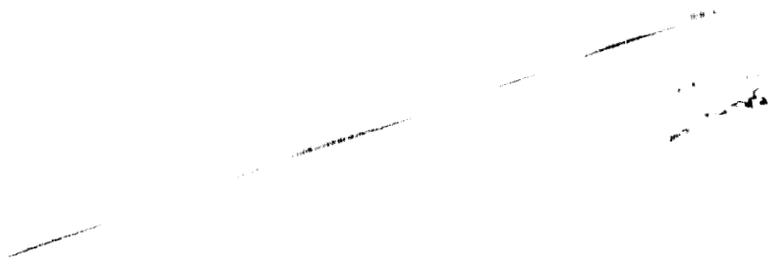
Subject: CBD Announcement dated 12/9/94
Real Time Electromagnetic Digitally
Controlled Analyzer and Processor (REDCAP)
Reconfigurable Early Warning/Ground
Control Intercept (EW/GCI) Radar Simulators
Contract No. F33657-88-C-2093

Dear Ms. Preta:

We are writing in response to the CBD announcement dated 9 December 1994 entitled "Real Time Electromagnetic Digitally Controlled Analyzer and Processor (REDCAP), Reconfigurable Early Warning/Ground Control Intercept (EW/GCI) Radar Simulators." We believe that it is in the best interest of the government to continue these efforts under the existing contract rather than to initiate another contract. We have been told that the new contract is required because the exercise date of Option E expired on 1 June 1993. We are willing to extend the exercise date and Not To Exceed cost of Option E, as well as that of Option F, to 30 September 1995. Beyond that action, we wish to offer you our comments from the perspective of being the contractor on the REDCAP Upgrades program for six years and, perhaps more importantly, as the original developer of the hardware-in-the-loop testing approach embodied in REDCAP over thirty years ago, having provided continuous support since that time.

In our opinion, if this work is contracted for separately, the government would be assuming significant additional risk and expense. Our current contract includes AFSC FAR Clause 52.217-9001, Total System Performance Responsibility (TSPR). Under that clause we are responsible for the performance of the total system and all of its components. If another contractor were to execute this new contract, we would have to be relieved from the responsibilities of the clause, greatly increasing government responsibility to assure total system performance.

We are concerned that another contractor, bidding in a competitive environment, will supply equipment meeting the same requirements that Calspan is meeting under the contract. We make the statement because our current contract was constructed by personnel at Wright Patterson AFB who knew that (1) we were under the TSPR (2) we had a history of upgrading REDCAP to high quality standards and in a far minimized future maintenance costs and (3) we had a vested interest in minimized maintenance costs since we anticipated having to face all of the maintenance



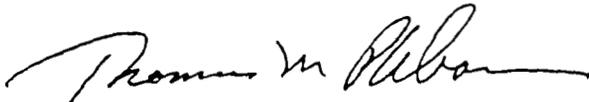
Lastly, we also note that Contract No. F33657-88-C-2093 does not require associate contractor agreements, except those specified in Clause H-014. In the past we have been reluctant to sign an associate contractor agreement with a potential competitor for fear of disclosure of company proprietary information. Even in the event that we did agree to sign an associate contractor agreement, assuming that we were unsuccessful in the competition, the government would still need to act as the systems integrator, thus taking on significant performance and cost risks.

Taking all of these factors into account, it seems to us that the government is risking its \$70+M investment in the REDCAP Upgrades program just for the possibility of saving a small amount by competing Option E. And, in all likelihood, any savings that might possibly be realized would be overtaken by increased costs for maintenance and logistics support, in addition to the government costs associated with a competitive procurement.

To reiterate, we believe that competing this work is not in the best interest of the government. We trust that you will accept our comments in the constructive spirit in which they are offered, and we look forward to a positive dialogue with you.

Very truly yours,

Calspan Advanced Technology Center



Thomas M. Pleban
Director of Contracts and Procurement

TP/acc
12/763/94
cc: LTC A. Villagran, COL D. Voss
Fax/Mail - all



11



MEMORANDUM

From: Steve Ackerman
To: Madelyn Creedon
Subject: CALSPAN contract information.
Date: April 24, 1995

Madelyn:

Attached are some of the items we requested from CALSPAN, that arose from the April 7, 1995 meeting on the REDCAP issue. Included are copies of the O & M contract, as well as the agreement/terms on the upgrade program mentioned. While CALSPAN stated that the Air Force set in motion an 18-month extension, I could not locate that specific information in this particular contract information.

Also included is part of some process information on guidelines of utilizing private contractors for defense-related research.

Please note that these are all original copies, and let me know if you think a copy of the contract information should go to our library. Also, if you need any additional specific information let me know. Thanks.

Steve.

