

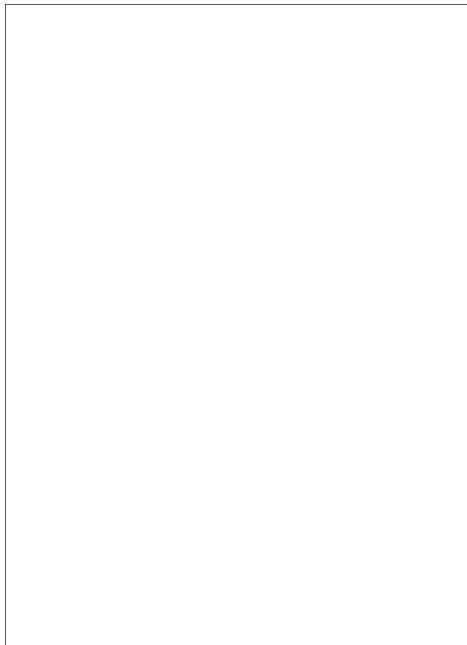
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26/10

**NPIC DATA SYSTEM
DATA AND CONTROL SEGMENT
ACQUISITION PHASE**

**VOLUME IV
COST PROPOSAL**

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24 February 1982

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NPIC DATA SYSTEM
DATA AND CONTROL SEGMENT
ACQUISITION PHASE

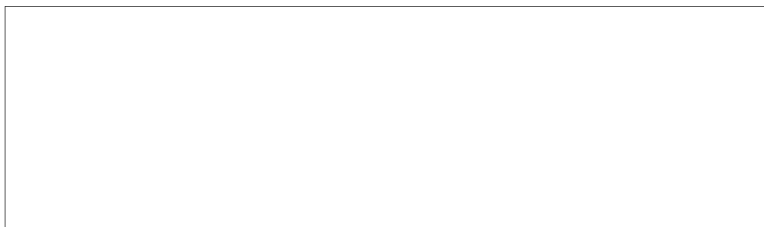
VOLUME IV
COST PROPOSAL



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24 February 1982

This data, furnished in connection with Request for Proposal 82-B-015 as amended, shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed in whole or in part for any purpose other than to evaluate the proposal. If a contract is awarded to this offeror as a result of or in connection with the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the contract. This restriction does not limit the Government's right to use information contained in the data if it is obtained from another source without restriction.



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INTRODUCTION

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SECTION 2
COST PROPOSAL

Introduction

This volume contains the cost proposal for the D/C Segment Acquisition Phase contract of the NDS Program. The proposal covers all costs associated with the design, development, acquisition, test and transition to full operating capability (FOC) of the D/C Segment from May 1, 1982 through July 31, 1988. The costs herein are subdivided to separately state the cost of implementing the BOC, the IOC and the FOC milestones. The proposal sets forth the estimated cost of performance by the [redacted] and other members of the D/C Segment Team, [redacted]

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Teaming agreements exist between [redacted] and the three respective team members whereby, subject to NPIC approval, [redacted] will award a subcontract to each company for portions of the D/C Segment acquisition when a prime contract is awarded to [redacted]

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D/C Segment Acquisition Phase price steps expressed in escalated dollars are summarized as follows:

- a. Acquisition price through IOC plus O&M through September 30, 1986.
- b. Acquisition price increment for FOC and O&M through July 15, 1988.
- c. Total acquisition price

[Redacted box]

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[redacted] recommended approach and proposed pricing yield a program funding profile by fiscal year as follows:

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FY

82

83

84

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86

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88

Total

[Redacted box]

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Cost Drivers (Continued)

3. Hardware configurations to meet performance, design margins and availability.

ADPE consists of two 3081 and one 3033 processors and peripherals
4. One-thousand Integrated Work Stations in three types including 500 IWS's with Collateral Information Displays (CIDs)
5. Development and Test Facility Equipment and Operations

Equipment consists of 1-3081, 1-4341 and 1-Univac 1100/81. Operations are planned for 34 months (19 months for 1100/81) with substantial periods of 3 shift operation.
6. Operation and Maintenance following IOC/FOC.

Costs include commercial hardware and software maintenance and maintenance personnel.

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Sections 3 through 8 which follow and Appendices C1 through C11 are prepared in accordance with the Government's RFP instructions and are believed to be fully responsive thereto.

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PROJECT DATA

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**SECTION 3
PROJECT DATA**

**SECTION 3.1
DD 633'S AND ACCOMPANYING DATA**

IV-3-1

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LTL 02/82

DEPARTMENT OF DEFENSE CONTRACT PRICING PROPOSAL	<small>FORM APPROVED ONS NO 15 40381</small>
--	--

This form is for use in procurements when submission of cost or pricing data is required (See DAR 1 507)

<small>NAME ADDRESS AND TELEPHONE NUMBER OF ORGANIZATIONAL ELEMENT RESPONSIBLE FOR SUPPORTING PROPOSAL</small>	<small>TYPE OF CONTRACT</small> CPAF
--	---

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<small>TOTAL COST</small>	<small>TYPE OF PROCUREMENT ACTION</small>	
<small>PROFIT/FEE</small>	<input type="checkbox"/> NEW PROCUREMENT <input type="checkbox"/> OTHER (Specify)	
<small>TOTAL</small>	<input type="checkbox"/> CHANGE ORDER <input type="checkbox"/> UNPRICED ORDER	
	<input type="checkbox"/> PRICE REVISION/REDETERMINATION	

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LINE ITEM NO	IDENTIFICATION	QUANTITY	TOTAL PRICE	REP
1	D/C SEGMENT ACQUISITION PHASE	LOT	LESS CSP	ATT I

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I IF YOUR ACCOUNTS AND RECORDS HAVE BEEN REVIEWED IN CONNECTION WITH ANY GOVERNMENT CONTRACT (PRIME OR SUBCONTRACT), GRANT OR PROPOSAL WITHIN THE PAST 3 YEARS BY A GOVERNMENT AGENCY OTHER THAN IRS OR GAO, PROVIDE NAME, ADDRESS AND TELEPHONE NUMBER BELOW

<small>CONTRACT</small>	
-------------------------	--

STAT

II WILL YOU REQUIRE THE USE OF ANY GOVERNMENT PROPERTY IN THE PERFORMANCE OF THIS WORK?
 YES NO IF YES IDENTIFY

III DO YOU REQUIRE GOVERNMENT CONTRACT FINANCING TO PERFORM THIS PROPOSED CONTRACT?
 YES NO IF YES IDENTIFY ADVANCE PAYMENTS PROGRESS PAYMENTS OR GUARANTEED LOANS

IV HAVE YOU BEEN AWARDED ANY CONTRACTS OR SUBCONTRACTS FOR THE SAME OR SIMILAR ITEMS WITHIN THE PAST 3 YEARS?
 YES NO IF YES IDENTIFY ITEM(S), CUSTOMER(S), AND CONTRACT NUMBER(S)

V IS THIS PROPOSAL CONSISTENT WITH YOUR ESTABLISHED ESTIMATING AND ACCOUNTING PRACTICES AND PROCEDURES AND DAR SECTION IV COST PRINCIPLES?
 YES NO IF NO EXPLAIN

VI COST ACCOUNTING STANDARDS BOARD (CASS) DATA (PUBLIC LAW 91 375 AS AMENDED):

- 1. WILL THIS PROCUREMENT ACTION BE SUBJECT TO CASS REGULATIONS?
 YES NO IF YES EXPLAIN
- 2. HAVE YOU SUBMITTED A CASS DISCLOSURE STATEMENT (CASS DS 1 or 2)?
 YES NO IF YES SPECIFY THE TOPIC TO WHICH IT APPLIES AND IF UNTERMINED TO BE ADEQUATE
- 3. HAVE YOU BEEN NOTIFIED THAT YOU ARE OR MAY BE IN NONCOMPLIANCE WITH YOUR DISCLOSURE STATEMENT OR COST ACCOUNTING STANDARDS?
 YES NO IF YES EXPLAIN See Attached
- 4. IS ANY ASPECT OF THIS PROPOSAL INCONSISTENT WITH YOUR DISCLOSED PRACTICES OR APPLICABLE COST ACCOUNTING STANDARDS?
 YES NO IF YES EXPLAIN

This proposal is submitted in response to (RFP, PROPOSAL NO. OR)

<small>TYPED BY</small>		
<small>NAME OF</small>		2

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INSTRUCTIONS

1. The purpose of this form (DAR 16-206) is to provide a vehicle whereby the offeror submits to the Government a pricing proposal of estimated and/or incurred costs by contract line item with supporting information, adequately cross-referenced, suitable for detailed analysis. A cost element breakdown, using the applicable format prescribed in 7A, B or C below, shall be attached for each proposed line item, and must reflect any specific requirements established by the Contracting Officer. Supporting breakdowns must be furnished for each cost element, consistent with the offeror's cost accounting system. Where agreement has been reached with Government representatives on use of forward pricing rates/factors, identify the agreement and describe the nature thereof. Depending on the offeror's system, breakdowns shall be provided for the following basic elements of cost, as applicable:

Materials — Provide a consolidated priced summary of individual material quantities included in the various tasks, orders or contract line items being proposed, and basis for pricing (vendor quotes, invoice prices, etc.). DAR 15-205.

Subcontracted Items — Include parts, components, assemblies and services to be produced or performed by other than you in accordance with your design, specifications or directions and applicable only to the prime contract. For each subcontract over \$100,000, the support should provide a listing by source, item, quantity, price, type of subcontract, degree of competition and basis of establishing source and reasonableness of price, as well as results of review and evaluation of subcontract proposals when required by DAR 3-807.

Standard Commercial Items — Consists of items which you normally fabricate, in whole or in part, and are generally stocked in inventory. Provide appropriate explanation of basis of pricing. If based on cost, provide cost breakdown; if priced at other than cost, provide justification for exemption from submission of cost or pricing data as required by DAR 3-807.

Interorganizational Transfers (at other than cost) — Provide explanation of pricing method used as required by DAR 15-205.22.

Raw Material — Consists of material which is in a form or state that requires further processing. Provide priced quantities of items required for this proposal. DAR 15-205.

Purchased Parts — Includes material items not covered above. Provide priced quantities for items required for this proposal. DAR 15-205.

Interorganizational Transfers (at cost) — Include separate breakdown of cost by element.

Direct Labor — Provide a time-phased (e.g., monthly, quarterly, etc.) breakdown of labor hours, rates, and cost by appropriate category and furnish basis for estimates. DAR 15-202 and 15-205.

Indirect Costs — Indicate the method of computation and application of your indirect costs, including cost breakdowns, and showing trends and budgetary data, to provide a basis for evaluation of the reasonableness of proposed rates. Indicate the rates used and provide an appropriate explanation. DAR 15-203 and 15-205.

Other Costs — List all other costs which are not otherwise included in the categories described above (e.g., special tooling, travel, computer and consultant services, preservation, packaging and packing, spoilage and rework, and Federal excise tax on finished articles) and provide basis for pricing.

Royalties — If amount exceeds \$250, the offeror must submit a DD Form 783-Royalty Report or its equivalent. DAR 15-205 and 9-409.

Facilities Capital Cost of Money — The offeror must submit Form CASB-CMF and show calculation of proposed amount.

2. As part of the specific information required by this form, the offeror must submit with this form, and clearly identify as such, cost or pricing data (that is, data which is verifiable and factual and otherwise as defined in DAR 3-807.1(a)(1)). In addition, submit with this form any information reasonably required to explain the offeror's estimating process, including:

- a. The judgmental factors applied and the mathematical or other methods used in the estimate including those used in projecting from known data, and
- b. The contingencies used by the offeror in the proposed price.

DD633 ATTACHMENT

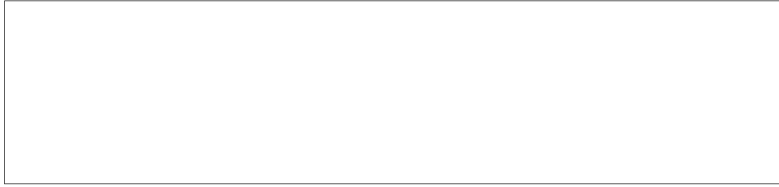
INFORMATION FOR QUESTION C IN SECTION VI

[] has received several initial notices on non-compliance which have subsequently been determined by the ACO to be immaterial. In addition, there are several initial notices of non-compliance which are under discussion with the ACO and for which final determinations are pending. It is [] opinion that, regardless of the final determination, none of the non-compliances will have a material cost impact."

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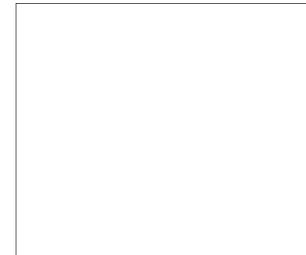
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- I. Price excluding Standard Commercial Items
- II. Standard Commercial Items* Attachment 2
- III. Total Price of this Proposal



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*The commerciality in the price of all line items with a price based on catalog or market price must have your concurrence prior to execution of any contract resulting from the proposal.

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GFE REQUIREMENTS

Requirement	Reason for Requirement	Potential Impact If Not Provided	Schedule and Location*	ROM COST (1000's)
o Complete List of Software/Support Tools Currently Being Used at NPIC	o To Identify Software Development and system Support Tools Useful for Development	o Incomplete Identification of Available Tools Could Result in Lower Development Productivity	o 11/82,	
o Univac System Software	o Software Required to Support Development Effort and CM Control	o GFE Lowers Cost to Customer-Alternative is IBM Rental	o 11/82,	
o Baseline NPIC-System Source Code/Object Code	o Software Required to Support Development Effort and CM Control	o Copies of Existing Code is Prerequisite to NPIC Software Development Effort-Other Options Not Available	o 11/82,	
o Univac 1100/81 Development Configuration-Associated Peripheral-Including FEP (Detailed Equipment List in Volume IV-Cost Proposal)	o Required for Univac Configuration Software Development/Integration/ Test and D/C Segment	o GFE Lowers Cost to Customer -Alternative is IBM Rental	o 11/82,	
o (5) DD5600 Terminals and Two Multiterms	o Required for Development/ Integration and Test	o Potential Schedule Delay and Lower Confidence in DD5600 Interface-Alternative is to Purchase DD5600 Terminal Emulators from Delta Data	o 11/82,	

Figure 3.7-2 GFE Costs (1 of 7)

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IV-3-31

GFE REQUIREMENTS

Requirement	Reason for Requirement	Potential Impact If Not Provided	Schedule and Location*	ROM COST (1000's)
<ul style="list-style-type: none"> o Provide Prototype Comm Network Hardware Including Associated Support Equipment and Software. Equipment to Include: <ul style="list-style-type: none"> (AR) LAN Cable (2) FEP Interface for 1100/81 (2) FEP Interface BIU's for 3705/3081 (2) IWS Interface BIU's (2) DD5600 Interface/Multiterm BIU (1) Remote Job Printer Interface BIU 	<ul style="list-style-type: none"> o Prototypes Required for Early Development and Integration Activity 	<ul style="list-style-type: none"> o Alternatives are Available for Strictly Software Development o Alternatives are Not Available for Preliminary Interface Development and Checkout o Potential Impact-Schedule Delays Due to Inadequate Interface Definition and Verification 	<ul style="list-style-type: none"> o 3/83, 	
<ul style="list-style-type: none"> o Provide Production Comm Network Hardware and Associated Support Equipment/ Software/Documentation to Include LAN cable and Sufficient BIU's to Support Four 3705's with Five 56 Kbps Ports, Six IWS's, One Univac FEP, Two Delta Data Multiterms and One Remote Job Printer 	<ul style="list-style-type: none"> o Production Equipment Required for Integration and Test of D/C-C/S Segment Interfaces 	<ul style="list-style-type: none"> o Comm Interface and inter-segment Test Impacts 	<ul style="list-style-type: none"> o 8/83, 	

Figure 3.7-2 GFE Costs (2 of 7)

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IV-3-32

GFE REQUIREMENTS

Requirement	Reason for Requirement	Potential Impact If Not Provided	Schedule and Location*	ROM COST (1000's)
o Current NPIC Data Base (DB)	o Data Base Conversion and CM Control	o Decreased Efficiency in Process	o 5/82,	
o User/Programmer/Maintenance Manuals for Existing System (Hardware/Operating System/Tools/Other Software)	o Understand Current System and for Development	o Decreased Efficiency in Redesign Process	o 5/82,	
o Results of [] T&I Analysis and Evaluations	o Data Required to Support User Interface and IWS Design	o Inability to Take Advantage of Study Results	o 5/82,	
o Part I Specs and Program (XOJ, XTS, XMC, XCN, XSS, GDH)	o Part of NPIC BOC Baseline for Configuration Control	o Initial Productivity Lowered During Time Period Required to be Proficient in CPCI Designs	o 5/82,	
o Part II Specs and Program Listings (XOJ, XTS, XMC, XCN, SXK, XMN, Terms)				
o NPIC Segment Updated Interface Specifications	o Needed for generation of D/C Segment Detail Design	o Lack of Timely D/C Segment Design Specifications	o 5/82,	
o Scenarios for Interfaces to D/C Segment: - C/I Segment - E/R Segment - External Users	o Required to Develop Software Simulations for D/C Segment Integration and Test	o Incomplete Testing Prior to Site Shipment	o 1/83,	

Figure 3.7-2 GFE Costs (3 of 7)

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IV-3-33

GFE REQUIREMENTS

Requirement	Reason for Requirement	Potential Impact If Not Provided	Schedule and Location*	ROM COST (1000's)
o Univac and C/S Vendor Services to Support Develop and Integration	o Required During Early Test of Interfaces so as to Eliminate Problems, D/S or C/S o Provides C/S Contractor with UNIVAC - DD5600 Test Bed	o Increased Risk During BOC at Government Site Integration	o 3/83,	
o Vendor Services for Other Integration/Test/and Equipment Maintenance Activity e.g.: C/I Segment Equipment D/C Segment Equipment	o Required to Generate Other Segment Equipment During Test and Integration and Resolve Interface Problems o Pre-tests Common Data Base Language	o Delay During IOC Integration with Possible Disruption of Operation at Government Site	o 3/84,	
o NPIC/CSD Services for Consultation Relative to Existing System Operation	o Required on a Continuing Basis to Verify Technical Requirements, NPIC Changes (HW, SW and Procedures), and Human Factors During the Period of the Contract	o Delivered System Will Not Optimally Reflect Users Requirements o Impact on Analyst, Particularly on Training Requirements Will Increase o Post-delivery Changes May be Necessary	o 5/82,	
o Provide Engineering Support Services for Integration and Equipment Maintenance	o Installation and Maintenance for GFE Equipment	o <input type="checkbox"/> Contract Directly with NPIC Comm Contractor	o 3/83, and Si	

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Figure 3.7-2 GFE Costs (4 of 7)

GFE REQUIREMENTS

Requirement	Reason for Requirement	Potential Impact If Not Provided	Schedule and Location	ROM COST (1000's)
o Space at NPIC for Six People to Support V6/V8 DMBS Conv	o Data Base Conversion - V6-V8	o Prerequisite for V6-V8 Conversion	o	
o Office Space for [] Representative at NPIC SITE	o NPIC Coordination with D/C Segment Contractor	o Coordination Would be Provided through [] location	o	
o Facility Requirements for Equipment Installation at []				
a. [] - 8500 Sq. Ft. Floor Space, Raised 18 Inches - 60 Hz 234 KVA - 400 Hz 62 KVA - 58 Tons A/C - 181 K Btu/Hr - 20%-80% Rel. Hum. - Office Space for 15 People	- Supports Computers maintenance, Operations, Test and Integration	- Prerequisite for Installation, Operation and Support of NPIC Computer Center	o	
b. [] - Office Space for 3 People - IWS 1589 KVA 60Hz 452 Tons A/C - 400 Ft. Maint. Area	- Supports IWS Installation Test, O&M	- Prerequisite for IWS Support	o	

(Further Detail in Tech Prop Appendix A6)

Figure 3.7-2 GFE Costs 5 of 7)

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IV-3-35

GFE REQUIREMENTS

Requirement	Reason for Requirement	Potential Impact If Not Provided	Schedule and Location	ROM COST (1000's)
c. [Redacted] - 225 Fl ² Office/Maint, Area - IWS 330 KVA 60 Hz 94 Tons A/C	- Supports IWS Installation, Test, O&M	- Prerequisite for IWS Support	o	
d. 1000 Sq. Ft. Classrooms [Redacted]	o To Train Instructors and Maintenance Personnel	o Training Effort Hampered	o	
o Access to NPIC Personnel for Data Base DSM 1100 V6/V8 Conversion	o Needed for BOC DB and SW Translations	o Decreased Efficiency in Conversion Process	o	
o Support of CSD/Univac Personnel for Software Conversion	o Needed for BOC DB and S/W Translations	o Decreased Efficiency in Conversion Process	o	
o Access to [Redacted] T&I Activity-Possible Joint Activity Related to Image Analyst Activity Definition and Human Factors Related Studies for Work Station Design (Experiments and Data Collection Would Be	o Access to NPIC Personnel for Engineering User Interfaces/ Display Formats/and User Operations, Concepts	o This Activity Will Have Direct Impact on Acceptability of NDP Related Improvements	o	

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(Further Detail in Tech Prop Appendix A6)

Figure 3.7-2 GFE Costs (6 of 7)

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IV-3-36

GFE REQUIREMENTS

Requirement	Reason for Requirement	Potential Impact If Not Provided	Schedule and Location	ROM COST (1000's)
(Continued)				
Performed By <input type="text"/> Based on D/C Segment and IWS Requirements				
(Further Detail in Tech Prop Appendix A6)				
o Access to Customer SI and Other Segment Contractors	o Interplanning/Segment Integration Interface Control Working Group Meetings	o Inefficient Information Exchange	o 5/82, SITE	<input type="text"/>

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IV-3-37

* Schedule indicates date desired. Requests for updated information will be made as needed.
 ** Where applicable, GFE will be tested to verify its operability. On completion
 of the tested GFE, a report is written and delivered to the Government.

Figure 3.7-2 GFE Costs (7 of 7)

CONTRACTOR DATA

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Section 4
Contractor Data

Section 4.1

Contractor Labor Skill Levels and
Rates and Travel Costs

IV-4-1

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Section 4.1.1

A. Backup Data -

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(1) Labor Skill Levels and Rates

Labor Rates. Labor rates at the are those hourly rates charged by personnel whose work can be readily identified with a specific product or contract. Engineering personnel are categorized and identified by four-digit job codes, ranging from the most professional to the least professional positions. These Engineering job codes are then segregated into five groups, starting with the highest, Group A, and proceeding to the lowest, Group E. Following are the applicable categorizations:

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GROUP A

Program Manager
Senior Engineer
Senior Systems Analyst
Senior Systems Analyst - Mgr.
Senior Programmer
Senior Programmer - Mgr.
Senior Systems Analyst
Senior Engineer - Staff

GROUP B

Development Engineer
Development Systems Analyst
Development Program Office Mgr.
Development Publications Mgr.
Development Programmer
Advisory Systems Analyst
Advisory Financial Analyst
Advisory Administrative Assistant
Advisory Engineer
Advisory Programmer

GROUP C

Project Systems Analyst
Department Manager
Project Engineer
Project Systems Analyst
Project Publications Manager
Project Programmer
Staff Systems Analyst
Staff Financial Analyst
Staff Administrative Assistant
Staff Program Evaluation Analyst
Staff Industrial Engineer
Staff Engineer
Staff Technical Writer
Staff Programmer

GROUP D

Sr. Associate Instructor
Associate Instructor
Sr. Associate Systems Analyst
Financial Analyst
Associate Financial Analyst
Publications Specialist
Sr. Publications Specialist
Sr. Technical Editor
Technical Editor
Programmer Analyst
Sr. Program Evaluation Analyst
Program Evaluation Analyst
Sr. Staff Assistant
Sr. Accountant
Staff Technical Editor
Associate Field Engineer
Sr. Associate Engineer
Associate Engineer
Technical Assistant
Technical Associate
Sr. Associate Technical Writer
Associate Technical Writer
Sr. Associate Programmer
Associate Programmer
Sr. Associate Program Writer

IV-4-2

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GROUP E

- Staff Assistant
- Field Engineer
- Program Technician
- Laboratory Specialist
- Draftsman
- Photo Lab Technician
- Editorial Assistant
- Administrative Aide
- Secretary
- Typist
- Librarian
- Computer Operator
- Repro Operator
- Junior Programmer
- Junior Engineer
- Technical Editor

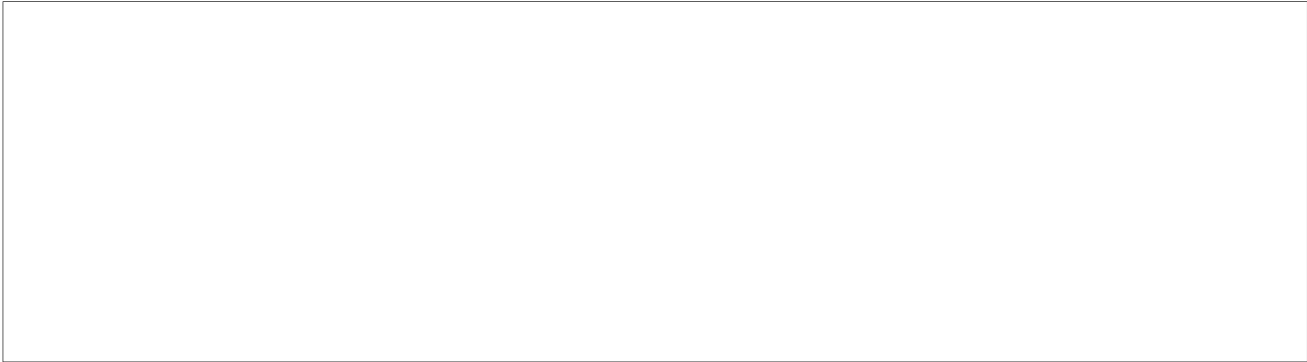
Examples of the preceding skill levels applicable to personnel currently working on the Design Competition Phase (DCP) contract are:

<u>Skill Level</u>	<u>Title</u>	
A	Senior Engineer	
B	Advisory Engineer	
C	Staff Programmer	
D	Senior Associate Programmer	
E	Secretary	

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Labor rates are forecast for each group by reviewing historical rates and by considering: (1) personnel movement between job codes, (2) annual increments, and (3) overtime levels which decrease exempt rates and increase nonexempt rates. The forecast rates then become the basis for the pricing process. Actual labor rates are recorded on a contract level as they are incurred. forecast and actual rates are continuously reviewed by the DCAA in residence at and current submitted rates are shown in Table 1.

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estimating procedures for vacation, holidays and sick leave/authorized absence time are as follows:

Vacation

Vacation entitlement is dictated by Company policy. In estimating this expense for a particular year, the following steps are followed:

- 1) The year's average headcount is calculated factoring in population changes for transfers and hires based upon approved manpower plans;
- 2) Entitlement for step 1) is determined based upon entitlement at a particular given point;
- 3) Average salary by entitlement category is projected factoring in salary increments consistent with the approved salary plan for the year;
- 4) Step 3) x 2) given vacation expense for the year;
- 5) Salary increment is added for prior year vacation;
- 6) 4) + 5) = vacation expense.

The number of days estimated in our rates is 18.

Holiday

The number of holidays are dictated by Company policy. In estimating the holiday expense the following steps are followed:

- 1) Project the average monthly population based upon approved manpower plans;
- 2) Project the average daily salary including a factor for salary increment consistent with the approved salary plan for the year;
- 3) The results obtained in steps 1) and 2) applied to the number of holidays equals the years holiday expense.

The number of days estimated in our rates is eleven.

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Sickness and Accident/Authorized Absence

Sickness and accident/authorized absence expense is determined as follows:

- 1) Project the average population based upon approved manpower plans;
- 2) Project the average weekly salary including a factor for salary increment consistent with the approved salary plan;
- 3) Determine the number of work weeks and applying a historical % of absence time (S&A/A.A.) results in the projected absence time for the year;
- 4) The result of 3) x 1) x 2) equals the total sickness and accident/authorized absence expense for the year.

The number of days estimated in our rates is 11 days.

Company Overtime Policy:Exempt Employees

Compensation for Management-Directed Extra Effort and Time

It is sometimes necessary for exempt employees to work extra time in order to fulfill the normal duties and responsibilities of their jobs. In these instances it normally is not intent to pay additional compensation for the extra time because salaries for exempt employees are based on performance of a total job and not specific hours worked. There are occasions, however, when business circumstances require exempt employees, at the request of management, to put in extra effort and time beyond normal requirements. In these cases, it is intent to provide additional compensation or, where appropriate, compensating time off in order to recognize the added job requirements not covered by base salary. In effect, additional compensation for exempt employees is a temporary adjustment to base salary in order to cover temporary expansion of job requirements.

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Exempt employees (except personnel compensated under a commission/incentive plan) are eligible for compensation for management-directed extra effort and time. Additional compensation for exempt employees will be a dollar amount based on salary and the anticipated degree of extra time required to fulfill the specified extra job requirements. The amount will be committed in advance and normally paid in full regardless of the number of hours worked. In case of cancellation of the task or assignment, or other extenuating circumstances that substantially alter the extent of an employee's extra effort, the payment may be prorated on the percentage of extra time worked.

Payment commitments may be made for two, three or four weeks. Because these commitments are normally paid in full regardless of the number of hours worked, it is generally good practice to limit them to the minimum number of weeks necessary to satisfy pre-scheduling requirements; then, if extra time requirements are expected to continue beyond that, an extension of the original authorization or a new commitment can be made.

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Regular exempt employees will receive shift premium for work on a second or third shift. When the schedule is for at least five payroll workdays in a payroll workweek and at least one day of scheduled second or third shift work assignment is worked, the employee will receive the applicable shift premium for the entire week. When absent for illness or for personal reasons approved by management, employees will receive the same rate of shift premium which they would have received had they worked.

When an employee is scheduled for a split-shift workweek (i.e., more than one shift schedule in a week), the weekly shift premium amount will be prorated on a daily basis. When at least one day of the scheduled second or third shift work assignment is worked, the employee will receive the applicable shift premium as prorated for the week. When absent for illness or for personal reasons approved by management, employees will receive the same rate of shift premium which they would have received had they worked.

Second Shift

A shift that starts at or after twelve noon and extends beyond the stopping time of the first shift.

Second Shift Compensation

10% of base salary

Third Shift

A shift that starts at or after 9:00 p.m.* and prior to 4:00 a.m.* and extends beyond the stopping time of the second shift.

Third Shift Compensation

12½% of base salary

Non-Exempt Employees

To recognize the value of services performed during unusual hours or conditions of work by providing pay in the form of added compensation beyond base salary. Compensation provisions covering these unusual situations result from:

1. Federal, state, and local laws providing for minimum payments in certain situations. These laws include the Fair Labor Standards Act, the Equal Pay Act of 1963, the Walsh-Healey Public Contracts Act and the Portal-to-Portal Act.
2. objective to compare favorably to the compensation practices of other leading companies for similar unusual hours or conditions of work.

Daily Overtime

- a. All hours in excess of regularly scheduled hours during an employee's regular payroll workday or in excess of 8 consecutive hours (exclusive

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of the meal period) will be considered as overtime hours. Nonconsecutive overtime hours could also result from emergency work or early arrival on the following day.

b. Compensation for Daily Overtime

- 1) Time and one-half for all hours worked in excess of 8 hours on any payroll workday, or in excess of 8 consecutive hours of work, (exclusive of the meal period).
- 2) If an employee's regular schedule is less than 8 hours per day, the employee will receive straight time for extra time worked between regularly scheduled hours and 8 hours per day.

- a. Shift premium is paid to employees assigned to work on second or third shift. Shift premiums are normally paid only for hours worked on second or third shift. Shift premiums, where applicable, must be initially added to base rates and the sum used to compute total compensation.

b. Compensation for Second/Third Shift

- 1) Second shift -- 10% of base hourly rate

Second shift is a shift that starts at or after 12:00 noon and extends beyond the stopping time of the first shift.

- 2) Third shift -- 12½% of base hourly rate

Third shift is a shift that starts at or after 9:00 p.m. and prior to 4:00 a.m. and extends beyond the stopping time of the second shift.

2. Other Rates

Overhead Rates. Overhead expenses at the include all costs, except direct materials and direct labor, that are incurred in producing a product or fulfilling a contract but which cannot be readily identified with a specific product or contract. Overhead expenses include accounting and financial services, personnel administration, normal office functions, general administration and such items as light, heat, power, taxes and employee benefits.

Such costs are either incurred (1) jointly to benefit a group of contracts or products, or (2) in such insignificant individual units that the expense of tracing them to products is prohibitive. Overhead expenses, therefore, must be indirectly related to the products or contracts through some equitable assignment.

To equitably distribute overhead costs, it is necessary to determine overhead costs, establish management control, determine price for products and facilitate preparation of accounting statements. Before the actual overhead costs are finally distributed by an automated computer system, overhead expenses must be classified through accounting schedules into types of departments. A department

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is classified as either direct or indirect according to its function. Groups of departments are then formed into overhead "pools" and indirect "centers". An overhead pool is a collection of indirect department expenses that support a common effort, and a direct center is a group of direct departments that perform a common effort.

Overhead distribution is calculated monthly. Work-in-process accounts are adjusted periodically to reconcile the difference between the actual rates and the applied rates.

[redacted] accounting procedures for overhead distribution are continually reviewed by the Defense Contract Audit Agency (DCAA) in residence [redacted]. Table 2 identifies the current submitted overhead bidding rates. The Burden Center code is a two-digit identifier used in the pricing system.

The [redacted] employs a waterfall method of allocation for overhead expense to develop 26 composite rates. These rates are applied as a rate per direct labor hour (hours worked). The waterfall distribution starts with indirect costs of approximately 2500 departments within the division, segregates the costs to approximately 100 overhead pools and develops the applied rates for the major functions and locations within the division.

Overhead Pools, Centers and Distribution Basis

<u>Pool</u>	<u>Expense Content</u>	<u>Distribution Basis</u>
Local Benefits	Divisional	Salary
Occupancy	Location	Site Area
Office Services	Location	Site Total Hours
General Works	Location/Division	Location Pools to Division Total Hours
Supervision/Support	Location	Direct or Total Hours of Pool/Center(s) Benefiting
Burden Center Indirect Expense	Location	Direct Hours

Overhead Application Basis

<u>Burden Centers</u>	<u>Application Basis</u>
Engineering	Direct Hours
Procurement	Direct Purchase Dollars

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Premise Rates.

Premises. This rate is applied to all direct hours performed on premises.

Customer Premises. This rate is applied to all direct hours performed on the customer's premises. The customer will provide office space, mail services, telephone and like support items. The rate excludes a charge for office services and occupancy that is included in the premises rate. To qualify for this rate, the contract must require people, on an individual basis, to be located on the customer's premise for at least six months.

In order to understand the waterfall system, the analyst must first be cognizant of the organization structure within the division. The approximately 2500 departments are organized by location and by functions within a location. Each department is assigned a department number when it is created. To this department number, a numerical identification, a three-digit alpha code is assigned, denoting the overhead pool or center in the waterfall system. Hence, since each employee is assigned a department working number, the system can accumulate the necessary statistics or data by department and by pool or center. Further, each department is assigned work package numbers. To this work package number, a one-digit identifier is assigned denoting that the task is direct or indirect. Since all costs within the accounting system are charged to work package numbers, the system senses whether the cost incurred is direct or indirect. Further, the accounting system assigns account numbers to the type of costs incurred through the various payment sources. The system can accumulate and segregate data on all of these identifiers.

Hence, the system can portray the indirect hours, the direct hours, the total hours, the indirect salary dollars, the direct salary dollars, the total salary dollars and the controllable expense incurred by department number, thus by pool and center. One more table exists within the system to maintain square feet occupied by departments in the burden pools.

Figure 1, Waterfall Method of Allocation, depicts the system in a simplistic format. In general, the expense which is most common is allocated to the remaining pools or center which is least common or higher in the desired Division organization structure. The first block or tier in the system is employee benefits. Two different pools exist within the Division to segregate benefits, local employee benefits, i.e., sickness and accident, allocated on total salary dollars and corporate employee benefits, i.e., retirement benefits, allocated on total hours. Once the employee benefits pools are closed out and every remaining pool has its share of employee benefits, the occupancy pools are closed out based on square feet of space used by the departments within the individual sites. Next, the office services pools, etc. are closed out until all pools are closed into the overhead centers.

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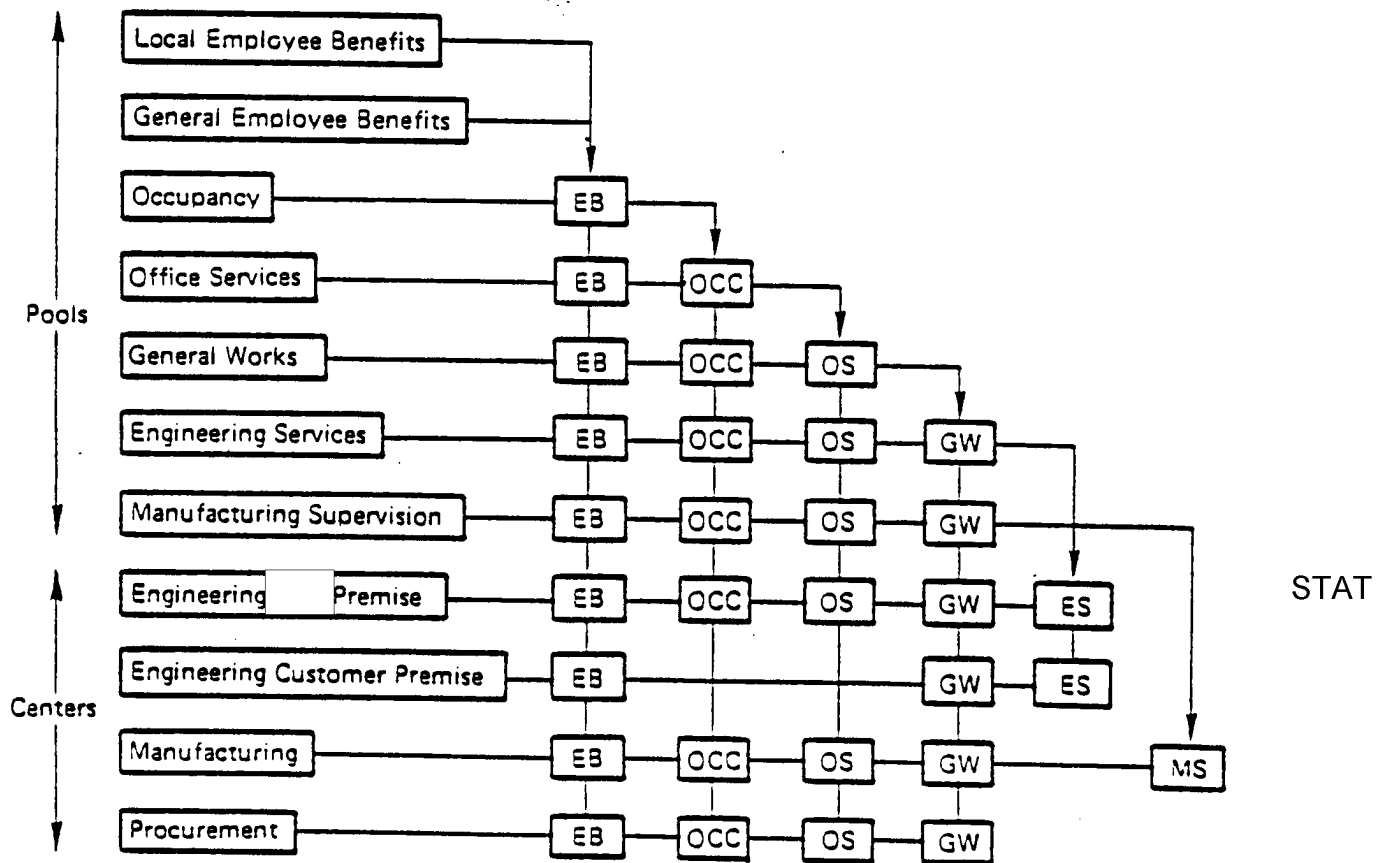


Figure 1 Waterfall Method of Allocation

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General and Administrative (G&A) Rates. The total General and Administrative (G&A) rate is applied as a percentage to the total factory cost. The G&A expense is comprised of the following: Corporate Headquarters Allocation of G&A expense, Independent Research and Development, Bid and Proposal, General [redacted] G&A expense.

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Within the [redacted] Unit there are two G&A pricing rates: regular and special subcontracts. In general, the rate for special subcontracts, which excludes an allocation of marketing expense, is used when [redacted] purchases a segment of work from another contractor which has a minimum value [redacted] on a total program basis.

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Within the Systems Integration Unit there is one G&A pricing rate. It is applied only to the system engineering, subcontract management, system test and integration and program management costs. No G&A is applied to major subcontract costs.

Table 3 identifies the [redacted] G&A rates.

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Table 3 G&A Bidding Rates

[redacted]

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Cost-of-Money. The bid rates for Cost-of-Money (COM) are derived on a historical basis. The average asset base for the previous year is determined for each organization represented by a burden center. The interest rate is then applied to this asset base to determine the cost-of-money. The COM is allocated over the direct labor hours in that burden center to arrive at a COM per hour. The G&A COM rate is calculated by using the COM allocated to assets utilized by organizations in G&A, and an allocation of the corporate assets which are applicable to [redacted] as well as the COM for Independent Research and Development (IRAD) and B&P. This total G&A part of the COM is then spread over the cost production for the Division. Table 4 identifies the specific current submitted rates by overhead centers for calculating COM.

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DESTINATION	YEAR	PURPOSE	IBM TRAVEL			STAT
			TRIPS	PEOPLE	DAYS	
Los Angeles, CA	1982	System Engineering Review of IWS effort	1	1	2	[REDACTED]
	1983	System Engineering Review of IWS effort	1	1	2	
Philadelphia, PA	1982	Interface Standards Coordination Meetings with the SI	2	2	2	[REDACTED]
	1983	Interface Standards Coordination Meetings with the SI	6	2	2	
	1984	Interface Standards Coordination Meetings with the SI	4	2	2	
	1985	Interface Standards Coordination Meetings with the SI	2	2	2	
	1986	Interface Standards Coordination Meetings with the SI	2	2	2	
Raleigh, NC	1982	Coordination Meetings with [REDACTED] Raleigh	1	2	2	[REDACTED]
	1983	Coordination Meetings with [REDACTED] Raleigh	2	2	2	
	1984	Coordination Meetings with [REDACTED] Raleigh	2	2	2	
	1985	Coordination Meetings with [REDACTED] Raleigh	3	2	2	
Los Angeles, CA	1982	Coordination Meetings with the work station vendor	1	2	2	[REDACTED]
	1983	Coordination Meetings with the work station vendor	1	2	2	
	1984	Coordination Meetings with the work station vendor	1	2	2	
	1985	Coordination Meetings with the work station vendor	2	2	2	
Raleigh, NC	1982	Performance Analysis for technical measurements with [REDACTED] Raleigh	2	2	5	[REDACTED]
	1983	Performance Analysis for technical measurements with [REDACTED] Raleigh	2	2	5	
	1983	Performance Analysis for technical measurements with [REDACTED] Raleigh	1	2	3	
Los Angeles, CA	1982	Coordination Meetings for the work station CI design	1	2	2	[REDACTED]
	1983	Coordination Meetings for the work station CI design	1	2	2	
Boston, MA	1982	Work station spec reviews with SI	1	2	2	[REDACTED]
	1983	Work station spec reviews with SI	1	2	2	
	1984	Work station spec reviews with SI	2	2	2	
Philadelphia, PA	1983	Work station spec reviews with SI	3	2	2	[REDACTED]
	1984	Work station spec reviews with SI	3	2	2	
	1985	Work station spec reviews with SI	2	2	2	
Washington Metropolitan Area	1985	Travel for testing changes (IOC)	12	2	1	[REDACTED]
	1986	Travel for testing changes (IOC)	24	2	1	

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IBM
TRAVEL

DESTINATION	YEAR	PURPOSE	TRIPS	PEOPLE	DAYS
Washington	1982	Local travel for Schedule Control personnel to visit customer site	16	1	1
Metropolitan Area	1983	Local travel for Schedule Control personnel to visit customer site	24	1	1
	1984	Local travel for Schedule Control personnel to visit customer site	24	1	1
	1985	Local travel for Schedule Control personnel to visit customer site	24	1	1
	1986	Local travel for Schedule Control personnel to visit customer site	24	1	1
	1987	Local travel for Schedule Control personnel to visit customer site	14	1	1
Washington	1982	Local travel to discuss costs status	8	1	1
Metropolitan Area	1983	Local travel to discuss costs status	12	1	1
	1984	Local travel to discuss costs status	12	1	1
	1985	Local travel to discuss costs status	12	1	1
	1986	Local travel to discuss costs status	12	1	1
	1987	Local travel to discuss costs status	7	1	1
PA	1982	One trip per month by subcontract management to discuss SDL status	8	1	2
	1983	One trip per month by subcontract management to discuss SDL status	12	1	2
	1984	One trip per month by subcontract management to discuss SDL status	12	1	2
	1985	One trip per month by subcontract management to discuss SDL status	12	1	2
	1986	One trip per month by subcontract management to discuss SDL status	12	1	2
	1987	One trip per month by subcontract management to discuss SDL status	7	1	2
Washington	1982	Local travel by Project Control Manager to visit customer	8	1	1
Metropolitan Area	1983	Local travel by Project Control Manager to visit customer	12	1	1
	1984	Local travel by Project Control Manager to visit customer	12	1	1
	1985	Local travel by Project Control Manager to visit customer	12	1	1
	1986	Local travel by Project Control Manager to visit customer	12	1	1
	1987	Local travel by Project Control Manager to visit customer	7	1	1
Philadelphia, PA	1982	Local travel by Project Control Manager to visit SI	2	1	2
	1983	Local travel by Project Control Manager to visit SI	4	1	2
	1984	Local travel by Project Control Manager to visit SI	4	1	2
	1985	Local travel by Project Control Manager to visit SI	4	1	2
	1986	Local travel by Project Control Manager to visit SI	4	1	2
	1987	Local travel by Project Control Manager to visit SI	2	1	2

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IBM
TRAVEL

DESTINATION	YEAR	PURPOSE	TRIPS	PEOPLE	DAYS
PA	1982	HQA monitoring	3	2	2
	1982	HQA monitoring	2	1	2
	1983	HQA monitoring	6	1	2
	1983	HQA monitoring	25	1	5
	1984	HQA monitoring	25	1	5
	1985	HQA monitoring	25	1	5
Washington	1984	Monitor hardware installation	8	1	3
Metropolitan Area	1985	Monitor hardware installation	8	1	3
	1986	Monitor hardware installation	8	1	3
Washington	1984	SQA monitoring software installation and test	26	1	1
Metropolitan Area	1985	SQA monitoring software installation and test	59	1	1
	1986	SQA monitoring software installation and test	35	1	1
Washington	1982	Software development working meetings with the customer	45	2	1
Metropolitan Area	1983	Software development working meetings with the customer	108	2	1
	1984	Software development working meetings with the customer	36	2	1
	1984	Supporting software site testing	240	5	1
	1984	Supporting software site testing	48	2	1
	1985	Supporting software site testing	36	2	1
	1985	Supporting software site testing	66	1	1
	1985	Supporting software site testing	66	1	1
Washington	1982	Perform software conversion task on site	87	5	1
Metropolitan Area	1983	Perform software conversion task on site	39	5	1
Washington	1982	Test coordination meetings with customer (BOC)	10	2	1
Metropolitan Area	1983	Test coordination meetings with customer (BOC)	10	2	1
Washington	1983	Site test support for BOC (BOC)	140	8	1
Metropolitan Area	1984	Site test support for BOC (BOC)	60	8	1
Washington	1983	Test coordination meetings with the customer (IOC)	6	2	1
Metropolitan Area	1984	Test coordination meetings with the customer (IOC)	24	2	1
	1985	Test coordination meetings with the customer (IOC)	12	2	1

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TRAVEL

DESTINATION	YEAR	PURPOSE	TRIPS	PEOPLE	DAYS
Washington	1985	Test coordination and site test support for IOC	120	8	1
Metropolitan Area	1985	Test coordination and site test support for IOC	20	8	1
Washington	1985	Test coordination meetings with the customer (FOC)	14	2	1
Metropolitan Area	1986	Test coordination meetings with the customer (FOC)	18	2	1
	1986	Test coordination meetings with the customer (FOC)	60	4	1
Washington	1982	ILS logistic meetings	24	2	1
Metropolitan Area	1983	ILS logistic meetings	24	2	1
	1984	ILS logistic meetings	24	2	1
	1985	ILS logistic meetings	24	2	1
	1986	ILS logistic meetings	24	2	1
Philadelphia, PA	1982	Configuration management visits with SI and other segments	1	2	2
	1983	Configuration management visits with SI and other segments	1	2	2
	1984	Configuration management visits with SI and other segments	1	2	2
	1985	Configuration management visits with SI and other segments	1	2	2
	1986	Configuration management visits with SI and other segments	1	2	2
Los Angeles, CA	1983	Configuration management visit with segment contractor	2	3	1
	1984	Configuration management visit with segment contractor	1	3	1
	1985	Configuration management visit with segment contractor	1	3	1
	1986	Configuration management visit with segment contractor	1	3	1
Washington	1983	Configuration management interface coordination	1	1	1
Metropolitan Area	1984	Configuration management interface coordination	1	1	1
	1985	Configuration management interface coordination	1	1	1
	1986	Configuration management interface coordination	2	1	1
Washington	1982	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	20	2	1
Metropolitan Area	1983	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	24	2	1
	1984	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	24	2	1
	1985	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	24	2	1
	1986	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	24	2	1
Washington	1982	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	12	1	1
Metropolitan Area	1983	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	12	1	1
	1984	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	12	1	1
	1985	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	12	1	1
	1986	Configuration management planning & coordination w/NPIC and NCB/OCB meetings	12	1	1
			TOTAL		

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Section 4.1.2

A. Backup Data

(1) Labor Skill Levels and Rates

LABOR

PRINCIPAL

6-15 years focused experience. Advanced degree (or equivalent experience). Superior communications skills. Total competence in managing major areas of business and multiple contracts. Faculty to fully communicate technical knowledge. An example of a person currently working on the Design Competition Phase contract

SENIOR ASSOCIATE

5-9 years technical experience. Advanced degree (or equivalent experience). Fully developed communication skills. Ability to develop innovative techniques and work methods for technical assignments. An example of a person currently working on the Design Competition Phase contract is

ASSOCIATE

3-7 years relevant technical/professional experience. Advanced degree (or equivalent experience). Well developed communications skills. Assignment planning and technical management ability. Exhibited leadership qualities. An example of a person currently working on the Design Competition Phase contract is

ENGINEERING DRAFTSMAN

Principal responsibilities are:

- A. To create and conceive simple and complex phases of all artwork required for graphics department.
- B. To create full color and black and white artwork.
- C. To ensure quality standards and time commitments are met.

An example of a person currently working on the Design Competition

SENIOR CONSULTANT

1-5 years relevant technical/professional experience. Advanced degree (or equivalent experience) in applicable discipline. Improved communication skills. Ability to function independently on individuals tasks and contribute to overall team performance. Able to work under limited direction from others and may guide more junior staff. An example of a person currently working on the Design Competition Phase contract is

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CONSULTANT

0-2 years relevant technical/professional experience. Advanced degree (or equivalent experience) in applicable discipline. Good communication skills. Works under direction of others. Responsible for in-depth data collection and preparation of sections of draft reports. An example of a person currently working on the Design Competition Phase contract is

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SECRETARY

Principal responsibilities are:

- A. To provide and maintain secretarial support in accordance with established procedures.
- B. To exercise judgment in carrying out assigned tasks.
- C. May perform some administrative tasks.

An example of a person currently working on the Design Competition Phase contract is

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WORD PROCESSOR SPECIALIST

The principal responsibilities of a Word Processor Specialist is to enter and retrieve computer data using a Cathode Ray Tube terminal.

An example of a person currently working on the Design Competition Phase is

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TECHNICAL EDITOR

Principal responsibilities are to ensure that the final copy of graphic or typed material is accurate: i.e., grammatically correct, properly punctuated, and spelled correctly. An example of a person currently working on the Design Competition Phase is

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The base labor rates indicated are computed by dividing the annual salary by 2,088 hours (the actual amount of hours in fiscal year 1982). However, we calculate an effective person year in the following manner:

2,088 hours (actual amount)
 (100) hours (vacation)
 (72) hours (holiday)
 (40) hours (sick and miscellaneous)
1,876 hours

The vacation, holiday and sick and miscellaneous leave is included indirectly in the Fringe Benefit allocation.

[redacted] anticipate that the use of overtime will be necessary on occasions to meet critical delivery schedules and to respond in a timely fashion to quick turnaround technical analyses and reports.

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Overtime premium is paid only to support personnel in such areas as typists, word processor operators and similar support personnel who would be involved in the publication of reports and analyses. The amount bid is based on the historical experience for like programs and is stated as a percentage of direct support labor costs. We estimate that the need for such overtime premium will occur on specific occasions when program needs dictate quick turnaround throughout the life of the contract. The use of overtime will have no adverse impact on other DoD contracts; in fact, the occasional use of overtime will relieve any necessity to divert support personnel from other DoD contracts in order to meet critical schedule demands.

The labor and bid rates upon which this cost proposal is developed and based, are those which are approved by our cognizant Government Auditor, Defense Contract Audit Agency (DCAA). Detailed cost and pricing data with respect to these rates and their application shall be furnished directly by [redacted] to the Government Contracting Officer upon request. Our resident DCAA auditor, [redacted] may be contacted at [redacted] by the Contracting Officer.

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(2) Other Rates

Local travel costs included in this proposal are based upon current fuel and auto operating costs. Such rates do not include provision for authorized increases in the cost of fuel nor increases resulting from the imposition of a Government surtax on fuel or parking.



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<u>DESTINATION</u>	<u>FY YEAR</u>	<u>TRIPS</u>	<u>PEOPLE</u>	<u>DAYS</u>
1 Beth to G'burg	1982	405	2	1
2 Beth to Wash Metro area	1982	20	2	1
3 G'burg to Wash Metro area	1982	250	2	1
1 Beth to G'Burg	1983	972	2	1
2 Beth to Wash Metro area	1983	2,841	2	1
3 G'burg to Wash Metro area	1983	2,664	2	1
1 Beth to G'burg	1984	972	2	1
2 Beth to Wash Metro area	1984	1,487	2	1
3 G'burg to Wash Metro area	1984	2,146	2	1
1 Beth to G'burg	1985	1,046	2	1
2 Beth to Wash Metro area	1985	154	2	1
3 G'burg to Wash Metro area	1985	493	2	1
1 Beth to G'burg	1986	146	2	1
2 Beth to Wash Metro area	1986	48	2	1
3 G'burg to Wash Metro area	1986	12	2	1
1 Beth to G'burg	1987	132	2	2
2 Beth to Wash Metro area	1987	44	2	2
3 G'burg to Wash Metro area	1987	11	2	2

- 1 Management Review - Coord for Tech Manual
- 2 Training
- 3 System Installation, check out and training

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Section 4.1.3

A. Backup Data

(1) Labor Skill Levels and Rates

Administrative Secretary - 16

Function: Provides skilled secretarial and administrative support to one or more members of middle management to enhance their operating efficiency.

An example of an individual working on the Design Competition Phase contract of this level is

Executive Secretary - 18

Function: Types, takes dictation and performs a wide variety of confidential, complex and administrative duties for a member of top management.

An example of an individual working on the Design Completion Phase contract at this level is

Assistant Staff Member - 22TB

Education: Bachelor's Degree

Experience: 0-2 years directly related professional work experience

or

Education: Formal education equivalent to 2 years of college

Experience: 2-4 years directly related professional work experience

Scope: Under close supervision, performs in an entry level professional position - usually as a member of a team - requiring general knowledge of engineering, physics, mathematics, operations research, computer science or other similar field with a degree in engineering, science, mathematics or related technical curriculum.

An example of an individual working on the Design Competition Phase contract at this level is

Associate Staff Member A-24TB

Education: Master's Degree

Experience: 0-2 years directly related professional work experience

or

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Education: Formal education equivalent to 2 years of college

Experience: 5-8 years directly related professional work experience

Scope: Within general guidelines, performs in a professional position requiring specialized knowledge of economics, english, business administration, history, sociology, psychology, political science or other similar field with a degree in liberal arts, business administration or the social sciences.

An example of an individual working on the Design Competition Phase contract at this level is

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Staff Member - 26TB

Education: Doctorate Degree

Experience: 0-2 years directly related professional work experience and a record of significant achievement in his/her field

or

Education: Formal education equivalent to Bachelor's Degree

Experience: 7-10 years directly related professional work experience and a record of significant achievement in his/her field

Scope: With considerable latitude, performs in a professional position requiring a thorough knowledge of engineering, physics, mathematics, operations research, computer science or other similar field with a degree in engineering, science, mathematics or related technical curriculum. May perform in a project management role and act as prime customer interface.

An example of an individual working on the Design Competition Phase contract at this level is

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Senior Staff Member - 27TB

Education: Doctorate Degree

Experience: 5-8 years directly related professional work experience, publication history, and recognition as a leader and authority in his/her field

or

Education: Formal education equivalent to Bachelor's Degree

Experience: 10-15 years directly related professional work experience, publication history and recognition as a leader and authority in his/her field

Scope: Within defined objectives but with considerable latitude, performs in a professional position requiring an in-depth knowledge of engineering, operations research, computer science, mathematics, political science, economics, psychology, sociology, business administration, or other professional field. Capable of independent complex analysis, concept formulation, and identification of new methods. Will typically perform in a project management role and act as prime customer interface.

An example of an individual working on the Design Competition Phase contract at this level is

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Principal Staff Member - 28TB

Education: Doctorate Degree

Experience: 10-15 years directly related professional work experience, an extensive publication history, a record of research achievements and recognition as a leader and authority in one or more disciplines

or

Education: Formal education equivalent to Bachelor's Degree

Experience: 15+ years directly related professional work experience, an extensive publication history and recognition as a leader or authority in one or more disciplines

Scope: Within broad objectives, performs in a professional position requiring high level technical knowledge and experience and demonstrated ability to analyze complex problems and develop unique solutions. Is a recognized leader in one or more disciplines and will perform original research and formulate new concepts. Will typically perform in a project management role and act as prime customer interface.

An example of an individual working on the Design Completion Phase at this level is

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Senior Principal C and B - 29TB and 30TB

The education and experience requirements, plus the scope of work, are comparable to those described for Principal Staff Member. However, to become a Senior Principal B or C on the Professional/Technical Career Ladder, a person's qualifications must be reviewed by a panel (no less than 3) of Senior Technical persons at Position Level 29 or 30. This is in addition to the normal management review and approval.

An example of an individual working on the Design Competition Phase contract at these two levels are:

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The base labor rate is based upon the following number of hours:

2080 work hours/year;
less 72 hours holiday,
less 80 hours vacation,
less 40 hours sick leave;

1888 hours available per year.

Company Overtime Policy

Extra Hours - Non-Exempt Employees

a. Overtime

Only those employees subject to the provisions of The Fair Labor Standards Act, i.e., non-exempt employees, will be paid for overtime. Non-exempt employees will be paid at straight-time hourly rates for all time worked up to eight (8) hours in one day or forty (40) hours in one week, and at 1-1/2 times their hourly rate for all time worked in excess of eight (8) hours in one day or forty (40) hours in any one week. If, however, absence occurs due to illness or disability during a week in which extra time is worked, only the hours actually worked are considered when computing weekly overtime pay. Other paid absences (for example, vacations and holidays) are counted as time worked for purposes of determining eligibility for payment at 1-1/2 times the hourly rate. To be eligible for overtime pay, the additional time worked must be authorized and approved - in advance - by the manager responsible for the account to which the time will be charged. Overtime will be reported on the employee's time sheet to the nearest one-quarter hour.

b. Other Time

(1) Exempt employees, at their discretion, may work casual extra hours. These casual hours are considered to be of a personal nature and are not be reported on the Time Sheet for compensation purposes nor are these hours considered as having been delivered against level of effort requirements on contracts.

(2) The Company may require exempt employees to work extra hours to complete their ordinary tasks. These extra hours are to be of benefit to the Company and are to be reported on the Time Sheet as "Other Time." Although there is no additional compensation, these hours are considered as having been delivered against level of effort requirements on contracts. Prior to the reporting of "Other" time, Vice Presidential approval is required.

(3) Exempt employees who are required to work by the Company but are not receiving additional compensation for these extra hours may be eligible for reimbursement of meal expenses as discussed in the Employee Benefits Chapter when home travel is impractical. To be eligible for reimbursement of meal expenses time sheets must show the approved "Other Time" worked, and the dates shown on the expense reports submitted for reimbursement must correlate with the dates shown on dates assuming the travel schedule is at the request of management or the customer. Payment for these hours will be made at the employee's regular rate of pay or at his overtime rate, whichever is applicable.

Travel time is not counted as hours worked and, therefore, will not be paid if: (1) the non-exempt employee travels as a commercial passenger or drives a vehicle outside his working hours, except as defined in the previous paragraph or (2) the employee elects to drive rather than fly, resulting in additional travel hours.

Extra Hours - Exempt Employees

a. Compensatory Time

In general, employees who are not subject to the provisions of The Fair Labor Standards Act (Executive, Administrative, Professional, and other personnel as so designated) are considered "Exempt" employees and normally receive a salary which is considered full compensation regardless of the number of hours worked. However, those exempt employees required to work long-term or recurring extra hours for the convenience of the Company, or at the request of the organization or agency for which the work is being performed, will earn compensatory time. Approval is required of the immediate supervisor before the extra hours are worked and charged to compensatory time.

Compensatory time is not automatically paid to the employee with each paycheck. It is accrued as it is worked and reported on the employee's regular time sheet. Compensatory time will be taken or settled by payment to the employee at the then-current rate of pay within twelve (12) months after the compensatory time is earned. Compensatory time which is twelve (12) months old will automatically be paid to the employee in the next payroll at the employee's then-current rate of pay.

Every effort should be made to give the employee time off rather than making payment. Compensatory time must be taken in periods of three (3) consecutive hours or more in any one day. Payment should be reserved for those cases where Company requirements have prevented the employee from taking time off or where personal hardship and/or emergency situations exist.

(2) Other Rates

CAS 414

is classified as a "Professional Services" company and, therefore, all proposed efforts are labor intensified. In accordance with this corporate structure, does not intend to claim a cost of money for facilities capital employed.

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will accept a clause in any resultant contract which states that cost of money for facilities capital employed will not be charged as direct cost to the contract.

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Travel - Out of Town (Continental United States)

The established procedure with respect to travel expenses is to reimburse employees for the actual costs incurred rather than pay a per diem rate.

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Meals and lodging are estimated on a per day basis in accordance with the guidelines as stated in the Joint Travel Regulations for the number of days the employee is on travel status. The air fare costs used for bid purposes in the proposal are based on fares for commercial air carriers at less than first class in accordance with air fares published in the current Official Airlines Guide.

Local transportation is estimated on the basis of \$27.00 per day for a rental car plus estimated taxi fares amounting to \$8.00 to cover the employee's transportation between his home and the airport.

Travel - Out of Town (Foreign)

Local transportation is estimated on the basis of \$35.00 per day for a rental car plus estimated taxi fares amounting to \$8.00 to cover the employee's transportation between his home and the airport.

Meals and lodging are estimated on a per day basis in accordance with the guidelines as stated in the U.S. State Department publication for the number of days the employee is on travel status.

Travel - Escalation

Out of Town travel costs as calculated above are incremented by a 15 percent annual escalation factor, calculated to the mid-point of each proposed twelve (12) month period of performance.

Travel - Local

Local travel is based on actual miles from point-to-point at \$.20 per mile when personnel are required to use private automobiles.

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[Redacted]
TRAVEL COSTS

<u>DESTINATION</u>	<u>YEAR</u>	<u>PURPOSE</u>	<u>TRIPS</u>	<u>PEOPLE</u>	<u>DAYS</u>
Los Angeles, CA	1982	Coordination meetings with the work station vendor	1	1	5
	1983	Coordination meetings with the work station vendor	2	1	5
	1984	Coordination meetings with the work station vendor	2	1	5
	1985	Coordination meetings with the work station vendor	2	1	5
	1986	Coordination meetings with the work station vendor	2	1	5
[Redacted]	1982	Coordination meetings with the SI	2	2	3
	1983	Coordination meetings with the SI	4	2	3
	1984	Coordination meetings with the SI	4	2	3
	1985	Coordination meetings with the SI	4	2	3
	1986	Coordination meetings with the SI	4	2	3
[Redacted]	1982	Staff travel for on-site work performance	3,302	2	1
	1983	Staff travel for on-site work performance	8,297	2	1
	1984	Staff travel for on-site work performance	2,697	2	1
	1985	Staff travel for on-site work performance	718	2	1
	1986	Staff travel for on-site work performance	320	2	1
	1987	Staff travel for on-site work performance	295	2	1
	1988	Staff travel for on-site work performance	234	2	1

Total

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Section 4.1.4

Backup Data

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LABOR SKILL LEVELS AND RATES

has grouped direct employees into job categories which identify technical specialties and average salary grades for a particular skill level. In general, the technical skills associated with the job categories can be determined as follows:

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- C - Computer Systems/Programming
- E - Engineering
- M - Project Management and Senior Staff
- S - Systems Analyst
- T - Technical Support
- H - Human Factors
- Z - Secretarial Support
- A - Administrative Support

For detailed descriptions of job categories, see Appendix A.

In addition to grouping employees by technical area of expertise, the Job Category also defines the salary grade normally associated with the identified level of technical skill and experience. The second identifier in the Job Category describes the appropriate salary grades as follows:

- 0 - Salary Grade 10, 11, and 12
- 1 - Salary Grade 7, 8, and 9
- 2 - Salary Grade 4, 5, and 6
- 3 - Salary Grade 3 and Non-Exempt 0 through A

EXEMPT SALARY STRUCTURE

GRADE	MINIMUM	MAXIMUM
10, 11, and 12	\$26,100	\$51,600
7, 8, and 9	\$20,200	\$39,900
4, 5, and 6	\$15,600	\$30,900
3	\$14,300	\$23,900

NON-EXEMPT SALARY STRUCTURE

GRADE	MINIMUM	MAXIMUM
A - 0	\$ 7,700	\$28,800

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Salary Increases

On a monthly basis, [] averages all Direct Labor applied during that month by job category and establishes an average rate for each. The monthly average rate per job category is then escalated for future periods by applying an increase factor determined by a statistical study that identifies the months actual wage increases occur. The occurrence ratio is reduced to a percentage factor by month based on the total year increase schedule for the current year. Succeeding years use total year increases based on Government economic forecasts and [] historical data. On an annual basis, both exempt and non exempt increase factors are expected to be 7% per annum.

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On a monthly basis, exempt increase factors are:

<u>MONTH</u>	<u>%</u>
Jan.	2.5
Feb.	.7
Mar.	.4
Apr.	.5
May	.3
June	.3
July	.5
Aug.	.5
Sept.	.3
Oct.	.5
Nov.	.3
Dec.	<u>.2</u>
TOTAL	7.0

The monthly increase factors for non-exempt are:

<u>MONTH</u>	<u>%</u>
Jan.	.7
Feb.	.6
Mar.	.5
Apr.	.6
May	.5
June	.4
July	1.1
Aug.	.6
Sept.	.7
Oct.	.6
Nov.	.4
Dec.	<u>.3</u>
TOTAL	7.0

Effectivity rates have been developed to compensate for non work days such as holiday, vacation, and sick leave which are charged to overhead pools. For FY'82 and beyond, Corporate Effectivity is projected to be .882. (See Figure 1)

Because of slight variations in average length of employment, annual vacation used and sick leave taken by Eastern Operations personnel, historical data indicates that a somewhat higher effectivity is experienced in the Washington area and the proposal is based on an average effectivity of .900 or 156 hours per month.

The methods used for computation of escalation factors, labor rates and effectivity have been reviewed by the cognizant DCASD-LA Administrative Contracting Officer and have been approved for Government bidding purposes. Factors, rates and effectivity for FY'82 and beyond have been submitted for approval by DCASD-LA for forward bidding purposes on Government contracts.

Exerpts from Policies and Procedures which pertain to salary grade structures, exempt overtime, non-exempt overtime, vacations and holidays are contained in Appendix B.

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CALENDAR	TOTAL CALENDAR DAYS	CALENDAR WORK DAYS*	CALENDAR WORK HOURS*	ACCOUNTING CALENDAR HOURS	TIME EFFECTIVITY	DIRECT HOURS IN A WARM BODY M/M**
Jan 1982	31	20	160	160	.821	131
Feb	28	20	160	160	.929	149
Mar	31	23	184	200	.927	185
Apr	30	22	176	160	.907	145
May	31	20	160	160	.927	148
Jun	30	22	176	200	.861	172
Jul	31	21	168	160	.852	136
Aug	31	22	176	160	.888	142
Sep	30	21	168	200	.867	173
Oct	31	21	168	160	.926	148
Nov	30	20	160	160	.934	149
Dec	31	21	168	200	.749	150
TOTAL	365	253	2024	2080	10.588	1828
AVERAGE	30.4	21.1	168.7	173.3	.882	152.3
			21.1 DAYS/MONTH (AVG)			
			253 DAYS/YEAR			
			4.33 WEEKS/MONTH (AVG)			
* EXCLUDES SATURDAYS AND SUNDAYS						
**TAKES INTO ACCOUNT THE NUMBER OF <input type="text"/> HOLIDAYS AND THE AVERAGE NUMBER OF VACATION DAYS, AND SICK DAYS TAKEN IN EACH MONTH						

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Figure 1

OTHER RATES

Labor Overhead. The burden rates used in this proposal are:

Facility Burden of:

<u>FY'82</u>	<u>FY'83</u>	<u>FY'84</u>	<u>FY'85 AND BEYOND</u>
104.7	106.7	108.7	109.7

Customer Facility Burden of:

<u>FY'82</u>	<u>FY'83</u>	<u>FY'84</u>	<u>FY'85 AND BEYOND</u>
79.5%	80.5%	81.5%	82.5%

These rates have been submitted for approval by the cognizant DCASD-LA Administrative Contracting Officer for forward bidding purposes on Government contracts.

General and Administrative Expenses (G&A). The G&A rates used in this proposal are:

<u>FY'82</u>	<u>FY'83</u>	<u>FY'84 AND BEYOND</u>
18.3%	18.1%	18.0%

These rates have been submitted for approval by the cognizant DCASD-LA Administrative Contracting Officer for forward bidding purposes on Government contracts.

Contract Facilities Capital and Cost of Money.

Pursuant to CAS 414, and DPC 76-3 the Capital Cost of Money Factors used in this proposal are:

<input type="checkbox"/> Facility Burden	.01135
Customer Facility Burden	.00137
G&A Expense	.00487

This cost has been incorporated into Other Direct Cost; however, General and Administrative Expense and Profit/Fee have not been applied to this cost.

These factors have been submitted for approval by the cognizant DCASD-LA Administrative Contracting Officer for forward bidding purposes on Government contracts.

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Travel

Temporary Duty Travel (TDY)

TDY trips are ordinary business trips associated with the contract effort. The number of trips, point of origin, destination, duration, and purpose of trips are based on [] analysis of the requirements of the proposed work. The cost per trip is based on less-than-first-class listed air fares, per diem, actual hotel, local transportation, and other authorized travel expenses, in accordance with [] corporate policies and are consistent with those utilized in other Government proposals.

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Including the customer identified key personnel mandatory to this effort [] estimates that during start-up, personnel from locations other than the Washington area will be required to meet the proposed schedule. Monthly TDY costs per individual are estimated to be \$1,780.

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Per Diem	2 @ 20	\$ 40.
	28 @ 22	616.
Rental Car	30 @ 15	450.
Apartment Rent		500.
1/5 of Round Trip Air Fare		
Super Saver LA/D.C.		68.
Gas/Miscellaneous		<u>106.</u>
		\$1,780.

Local Travel. Local Travel within the Washington area (to include Paoli) will be accommodated by purchase of a vehicle estimated to cost \$10,000 with operating expenses to include gas, maintenance and supplementary travel by personal auto at 2,000/month.

Permanent Change of Station (PCS) Cost.

Relocations were estimated at an average cost of \$25K per location.

Subcontract and Other Direct Cost Escalation

Escalation of Subcontractor Costs.

Subcontractor labor costs were escalated at 7% per annum. Hardware costs that were not quoted on a fixed price OEM basis were escalated at 4% per annum based on industry data which indicates a 3% decline in costs of computer terminal and peripheral equipment costs per year compounded by [] estimate of learning curve impact on equipment buys of 500 or more.

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Other Direct Cost Escalation.

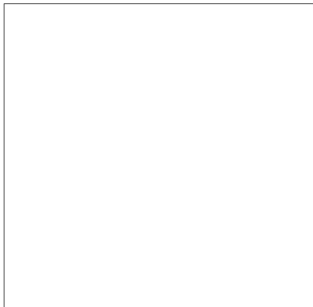
Other direct costs were escalated at 7% per annum.

Reproduction

Reproduction costs are based on actual experience costs incurred on similar contracts. This historical experience indicates that reproduction costs are typically 4.4% of direct home labor.

FIGURE 3

EXAMPLES OF JOB CATEGORIES



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APPENDIX A

JOB CATEGORY DESCRIPTION

<u>Job Category</u>	<u>Description</u>
C0 Computer System Specialist	Personnel at this level range from being recognized experts to emerging experts in the programming field. They are capable of designing, developing, and maintaining advanced computer programs and/or program systems to satisfy specific contractual requirements. They are further required to conceive and develop new testing and programming techniques or to make innovative applications to existing techniques. Specialist-Senior personnel are distinguished by the fact that the majority of their responsibilities involve the conceptualization and development of new programming systems.
C1 Computer Programmer Analyst	Incumbents within this category are capable of performing design, development, test, and maintenance of computer programs and program systems to satisfy specific contractual requirements. They typically concentrate on specific phases of programming within a particular system. Senior level analysts are capable of visualizing and developing total program systems as opposed to individual programs within a system. They are expected to conceive and design new test tools and techniques.
C2 Computer Programmer	Personnel within this category perform a variety of programming assignments under the direction of senior programming personnel. They are capable of assisting in the design, development, test and maintenance of computer programs to satisfy specific contractual requirements. Normal duties include developing computer programs from approved design specifications by preparing detailed flow diagrams, writing computer language instructions, defining test requirements, utilizing appropriate existing test tools for debugging and verifying programs, and insuring that generated output conforms to design criteria and specifications.
C3 Associate Programmer	Personnel within this category are considered entry level to the programming field. They perform typical programming tasks such as: writing programs in either procedure or machine oriented languages; developing flow charts, decision tables, and prose descriptions for coding programs; revising, testing, and debugging programs; and documenting operating procedures manuals and program descriptions. These tasks while performed under the technical direction of more senior programming personnel are characterized by the availability of detailed information as a working base, the application of techniques that are largely proceduralized and narrow in scope, and the resolution of problems entailing a limited analysis of a few established alternatives.

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E0 Engineer Senior

Personnel at this level range from being recognized experts to emerging experts in the engineering field. They have the capability to plan and conduct operational and research studies involving the extension and application of advanced engineering principles and concepts to the total design and concepts to the total design and development of complex man-machine systems. Normal duties include consultation in the overall development and implementation of varying and highly complex large-scale command and control systems, performance of highly advanced circuit or mechanical design, and direction of major study projects dealing with large-scale system operations such as radar or computer systems.

E1 Engineer

Incumbents within this category are capable of either providing substantive knowledge to the solution of or directing portions of professional engineering projects and studies involving the wide application of engineering principles, theories, and concepts from various specialties to the design, development, and evaluation of equipment required for complex man-machine systems and applications and other areas of corporate interest. Normal duties include analyzing, evaluating, and recommending equipment required for corporate projects; obtaining information pertaining to physical features for facilitating efficient equipment utilization; and designing segments of circuits for simulation and peripheral computer equipment.

E2 Engineer Associate

Personnel within this category perform entry level engineering assignments and studies under the supervision of higher level engineering personnel. They are capable of assisting in various studies and projects, and designing segments of circuits or components for simulation and peripheral computer equipment. Normal duties include applying basic engineering principles, theories, and concepts to the design, development, and test of prototype electronic, optical, or mechanical equipment used in computer-based man-machine systems and other areas of corporate interest.

E3 Engineer Technician

Personnel at this level work under the direction of senior engineers. They have the capability to lay out complete developmental electronic and electro-mechanical units and systems; fabricate, assemble, and calibrate electronic and electro-mechanical units and systems; and perform developmental testing of electronic units and systems under variable conditions, using standard or specially built test equipment. They typically work from primary design drawings, schematics, rough sketches and other diagrams, that require considerable interpretation and application of experience and judgment.

H0 Project Management and Senior Staff

Personnel within this category are responsible for supervising and providing overall technical guidance to a project or to major tasks within a project. They are responsible for the design, development, integration, and implementation of existing and proposed military operational and/or support systems. They participate in technical and administrative planning for the corporate organization, and may represent their Division/Department Manager as a corporate spokesman in matters relative to project or program commitment. Major duties include supervision and technical guidance to the project/program staff, presentation of detailed briefings to customer and corporate staff, coordination with Division/Department managers to ensure project activities are meeting stated objectives and comply with customer agreements and commitments, and conformance with regulation of cognizant governmental agencies.

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50 Systems Analyst Specialist

Personnel within this category are considered to be recognized experts or emerging experts in one or more related fields of systems analysis. Their major duties and responsibilities involve the formulation of concepts and the development and implementation of new and modified systems in advanced and highly complex areas of application to fulfill user requirements relating to the retrieval of information and to increase the level of user performance and operating effectiveness. They are capable of developing and specifying operational design for the development and maintenance of information processing systems and retrofit of computer-based systems as well as evaluating a broad scope of advanced operational aspects of current and newly developed systems.

51 Systems Analyst Senior

Personnel at this level have developed a working knowledge of the established principles, theories, and concepts, in an area of specialization, plus a working knowledge of other areas as they relate to and affect their prime specialty. They have the capability to formulate concepts for the development of new and modified systems in broad areas of application to fulfill user requirements relating to the retrieval of information and to increase the level of user performance and operating effectiveness; to develop and specify operational design of a broad and complex nature required for the development and maintenance of information processing systems and retrofit of computer-based systems. Their major duties and responsibilities include determination of a wide variety of system approaches dealing with establishing principles and concepts to meet user objectives by analyzing and evaluating system elements, evaluation of operational aspects of current systems to determine the need for modified approaches, and the conduct of special studies and investigations pertaining to the development of new information processing systems.

52 Systems Analyst

Personnel within this category typically concentrate on specific phases of analysis within a particular system while expanding and developing their overall technical proficiency and knowledge of the system as a whole. They are capable of developing new and modified systems to fulfill user requirements relating to the retrieval of information and to increase the level of user performance and operating effectiveness; and also capable of developing and specifying operational design requirements for the development and maintenance of information processing systems and the retrofit of computer-based systems. Entry level personnel work under direct supervision, whereas others work independently on most assignments and receive general direction on aspects of their work. Major duties include determination of system approaches to meet user requirements by analyzing and evaluating system components, assessment of the need for modified approaches, and conduct of special studies and investigations of a limited scope pertaining to the development of new information processing systems.

T3 Technical Support

Personnel within this category may perform in one or more of the following technical/clerical duties in support of major technical projects in the areas of data processing, computer science, applied mathematics, science, and other related fields. Computer operators at this level are capable of setting up and operating computers and peripheral equipment within a computer facility. They monitor machine and program operations to detect errors and react appropriately to machine malfunctions and program errors. Clerical duties assigned to such personnel are typically complex and require a basic understanding of the project's procedures, purpose, and technical terminology.

Z3 Secretarial Support

Personnel within this category perform routine office duties such as setting up and administering filing systems, setting up appointment schedules and meetings, coordinating paperwork, and acting as office information center. They perform stenographic functions including taking and transcribing dictation, and typing reports, correspondence, and memoranda in accordance with accepted corporate policy.

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APPENDIX BEXCERPTS FROM POLICIES AND PROCEDURES

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4.4 SALARY GRADE STRUCTURES

As a result of many job evaluations and market comparison studies, has established two salary grade structures that permit (1) the identification of and differentiation among major segments of the Corporation's population; (2) competitive and equitable payment for work performed; and, (3) recognition of differing on-the-job performances by means of a range spread.

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Non-Exempt Structure. The Non-Exempt Structure is used for employees who are subject to the overtime and minimum wage provisions of the Fair Labor Standards Act.

Exempt Structure. The Exempt Structure is used for all administrative, professional, and executive employees who are not subject to the overtime and minimum wage provisions of the Fair Labor Standards Act. From the standpoint of pricing, the lower grades of this structure tend to overlap with the highest grades of the non-exempt structure.

5. PAID ABSENCES

5.1 HOLIDAYS

All permanent full-time employees are entitled to eight (8) paid holidays per year, provided they are on pay status either the day before or the day after the holiday. New employees and terminating employees must be on pay status the day before and the day after a holiday.

The designated holidays are: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas and two (2) floating holidays as designated by management each year.

5.2 VACATION

Exempt Employees. Exempt employees will accrue twenty (20) days paid vacation each twelve (12) months of full time employment.

Nonexempt Employees. Nonexempt employees will accrue vacation time equal to:

- twelve (12) days for each year of full time employment for the first five years,
- fifteen (15) days for each year of full time employment from the sixth through the tenth year,
- twenty (20) days for each year of full time employment thereafter.

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5.3 EMPLOYEE SICK LEAVE

All requests for sick leave will be considered by Personnel on the basis of such factors as: length of employment, previous sick leave record, and the circumstances surrounding the requested sick leave. Normally five (5) days in a calendar year will be allowed to cover periods of employee illness or injury. Additional time may be approved, if the overall sick leave record has been good since date of hire. Sick leave will not be approved when it occurs during a planned vacation unless the illness or injury requires hospitalization.

Absences of five consecutive days or more may require a statement from the employee's physician attesting to health and physical limitations, if any.

6.5 OVERTIME PAY FOR NON-EXEMPT EMPLOYEES

policy, in keeping with applicable Federal and State wage-hour laws, provides additional compensation to non-exempt employees for all hours worked in excess of eight in any one workday (6.5 for "C" shift personnel), or in excess of forty hours per payroll week (32.5 for "C" shift personnel), whichever is greater.

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Rate of Pay. Compensation for overtime work is paid at the rate of one and one-half times the employee's regular hourly rate, except that double time is paid for all hours worked on an employee's seventh working day in the payroll week--provided the employee worked at least one hour on each of the other six days of that workweek. (It is generally expected that an employee will have worked approximately 48 hours or more during the workweek prior to being paid the double time rate for work on the seventh day). Double time is also paid for all hours worked in excess of twelve in any one workday.

7.1 OCCASIONAL EXTRA HOURS OF WORK FOR EXEMPT EMPLOYEES

It is policy that every exempt employee's basic job occupies a minimum of a 40-hour week. In addition, extra efforts periodically require the exempt employee to work in excess of 40 hours a week. Such extra efforts are considered normal for exempt employees and not subject to overtime pay. However, an exempt employee who works 12 or more hours on a regular workday or more than 6 hours on a Saturday, Sunday, or holiday may be reimbursed for extraordinary meal and transportation expenses incurred as a result of working such extended hours.

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TRAVEL

<u>DESTINATION</u>	<u>YEAR</u>	<u>PURPOSE</u>	<u>TRIPS</u>	<u>PEOPLE/ TRIP</u>	<u>DAYS TRIP</u>
[Redacted] PA	1982	Coordination Meetings on AIN/IWS	5	2	3
	1983	Coordination Meetings on AIN/IWS	8	2	3
	1984	Coordination Meetings on AIN/IWS	6	2	3
	1985	Coordination Meetings on AIN/IWS	4	2	3
	1986	Coordination Meetings on AIN/IWS	3	2	3
	1987	Coordination Meetings on AIN/IWS	2	2	3
	[Redacted]	1982	Coordination Meeting on CID/IWS	2	3
1983		Coordination Meeting on CID/IWS	6	2	3
1984		Coordination Meeting on CID/IWS	8	2	3
1985		Coordination Meeting on CID/IWS	4	2	3
1986		Coordination Meeting on CID/IWS	4	2	3
1987		Coordination Meeting on CID/IWS	2	2	3
Los Angeles, CA		1982	IWS Coordination/Human Factors Lab.	3	3
Philadelphia, PA	1982	Interface Coordination Meeting with SI	3	2	2
	1983	Interface Coordination Meeting with SI	6	2	2
	1984	Interface Coordination Meeting with SI	2	2	2
	1985	Interface Coordination Meeting with SI	2	2	2
	1986	Interface Coordination Meeting with SI	2	2	2
Boston, MA	1982	Work Station Spec Review with SI	1	2	2
	1983	Work Station Spec Review with SI	1	2	2
	1984	Work Station Spec Review with SI	2	2	2
Washington Metropolitan Area	1982	Technical Coordination and Customer Site	65	2	1
	1983	Technical Coordination and Customer Site	36	2	1
	1984	Technical Coordination and Customer Site	36	2	1
	1985	Technical Coordination and Customer Site	24	2	1
Washington Metropolitan Area	1986	Technical Coordination and Customer Site	24	2	1
	1987	Technical Coordination and Customer Site	20	2	1
TOTAL					

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ASSUMPTIONS

SECTION 5
ASSUMPTIONS

This section states major assumptions made by [] in preparing the cost proposal. It also provides a brief description of our subcontractor evaluation process and a discussion on our cost estimating substantiation process.

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5.1 Schedule Assumptions

Proposed BOC, IOC and FOC Dates

The proposed completion dates for D/C Segment operational capabilities, along with dates for System operational capabilities are enumerated below:

<u>Milestone</u>	<u>D/C Segment Operational Capability</u>	<u>System Operational Capability</u>
BOC	5-15-84	10-15-84
IOC	5-15-85	7-15-85
FOC	9-15-85	7-15-87

Figure C5-2 in Appendix C5 establishes the start-stop dates at WBS task level 3 which have been the basis on which we have separated the BOC, IOC and FOC costs.

Following the September 15, 1985 completion date, we propose a scale-down of our contract organization. From that date through completion of the System FOC, July 15, 1987, a smaller [] contract organization will meet the needs for intersegment and interprogram tests/demos plus the operations and maintenance (O&M) effort.

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Pricing of the O&M effort following BOC has been on the basis of a shared effort between [] and the Government. Pricing assumes that one-half the O&M labor will be [] supplied and one-half will be Government supplied through the first half of calendar 1986. In ensuing months, the ratio of Government supplied labor is increased gradually until at contract end, the O & M labor is fully Government supplied.

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5.2 GWBS Assumptions

5.2.1 Project Management

Training

This effort as budgeted assumes that we will provide training of Government instructors in each category of instruction. Training of actual user, operator and software and hardware maintenance personnel is the responsibility of the Government instructors and has not been included herein.

Computer Operations

We have assumed that training of Government computer operators will take place prior to and during the first month's run-in and test use of newly installed hardware and that the Government operators will be responsible for computer operations starting one month after installation.

System Programmers

We have assumed that as the BOC O&M phase is commenced, the Government will assign its programmer personnel to work alongside of contractor's O&M software team. Government system programming personnel will constitute one-half the programmer work force (14) and assume an increasing responsibility until a point in time 3 months before the end of the FOC O&M period. At that time the contractor's programmer staff will have diminished to a level of 3 persons at the site and remains at that level until contract completion.

IWS Maintenance Support

We have assumed that as the BOC O&M phase is commenced, the Government will assign its hardware maintenance personnel to work alongside of contractor's O&M IWS maintenance team. Government maintenance personnel will constitute one-half the maintenance work force (2 to 3) and assume increasing responsibility for maintenance services as the contract reaches its end.

5.2.2 Systems Engineering Assumptions

ADPE Costs

The deliverable ADPE consists of two 3081 systems and one 3033 system. Following are the ground rules for pricing these systems:

- a. One 3081 will be ordered and installed in December, 1982 in the Development and Test Facility. Following its utilization for development and test, it will be shipped and installed at the customer's site in March, 1985 to complete the IOC configuration.
- b. One 3081 and one 3033 will be ordered and installed in January, 1984 at the Customer's site to make up the BOC configuration.
- c. Maintenance costs for these items are GSA catalog Minimum Monthly Maintenance Charges (MMMC) based on twenty-four hour per day, 7-day per week, on-call maintenance.
- d. The maintenance contract on ADPE begins 90 days after installation.
- e. Software monthly costs begin 1 month after installation.
- f. Hardware maintenance and software licensing and service costs are carried through July 31, 1988.
- g. Detailed calculation of the costs is available in the pricing files.

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ADPE for Development and Test Facility

The ADPE for the Development and Test Facility consists of one 4341 system, one 3081 system (later included in the deliverable configurations), and one Univac 1100/81 (assumed to be GFE'd). Following are the groundrules for pricing these items:

- a. One 4341 will be leased from May, 1982 through March 1, 1985. It is included in the proposal price at FSD internal lease rates.
- b. One 3081 will be ordered and installed in December, 1982 and will remain a part of the development configuration through March 1, 1985.
- c. We have assumed commercial maintenance of this equipment. Maintenance plans other than commercial maintenance were considered and it was concluded that the best maintenance that could be provided to NPIC is commercial maintenance. This is costed based on providing 9 hours per day, 5 days a week on-call maintenance. Additional maintenance if required overnight or on weekends would be handled on an individual call basis at an extra charge not priced herein.
- d. A Univac 1100/81 and its related software products are required at the Development and Test Facility from December 1, 1982 through June 30, 1984. Equipment lease is assumed to be GFE'd. Equipment maintenance and software license and service costs are assumed to be the responsibility of the contractor and are included as cost elements in this proposal.

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Communications Protocol Software

We have priced our communications interface software design on the basis that NPIC will specify a Communications Segment, level 1 through 3 interface protocol compatible with the X.25 protocol for packet switching networks. Since the level 4 through 7 protocol is undefined, we have assumed the commercial NCP protocol.

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Query Language Software

We have priced our query language software design on the basis that NPIC will specify a standard query language compatible with the commercial MOD 204 data base management system.

Non-Commercial Spares

Because a fully developed maintenance and logistics plan and accompanying spares philosophy have not yet been prepared, non-commercial spares have been omitted from this proposal price.

Commercial Spares

Cost of commercial ADPE spares is not a separately costed item but is included in the cost of commercial maintenance.

Engineering Change Activity

No costs are included to cover engineering change activities.

5.3 Miscellaneous Assumptions

5.3.1 Government Furnished Equipment

We have assumed that the Government will furnish a Univac 1100/81 and peripherals to for use in its Development and Test Facility for a period of 19 months commencing December 1, 1982. Prices for hardware maintenance and software licensing/maintenance have been included.

The full list of software, hardware, communications items, data/documentation, services and facilities assumed to be furnished to the contractor by the Government is itemized in Appendix C12 of this proposal.

5.4 Subcontracts Evaluation Process

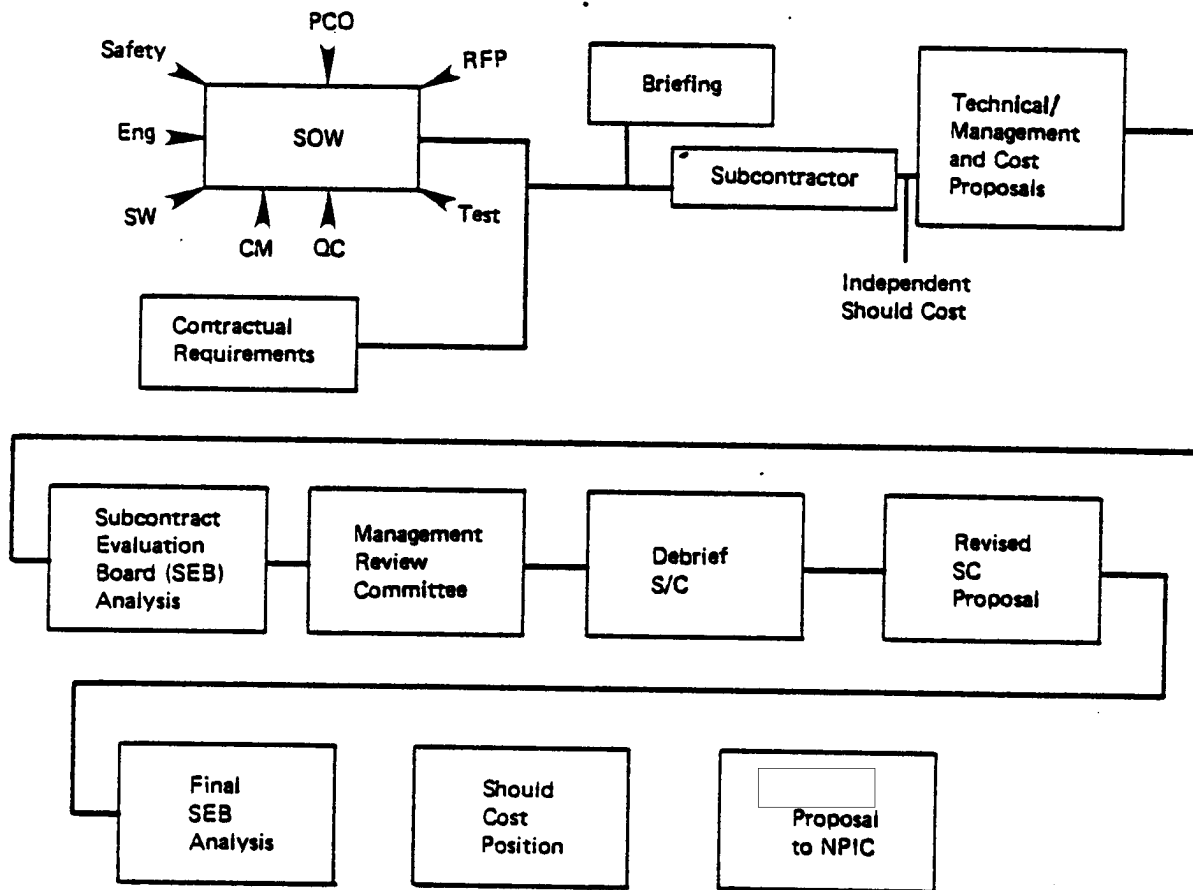
A requirement was established to evaluate the subcontractor proposals as though the team members were involved in a competitive procurement. This was done to assure that there was not overlap of work between team members, that all effort asked for was included in the proposals, and that the lowest, yet credible price was achieved. To fulfill this requirement a Subcontractor Evaluation Board (SEB) was formed. Figure 5.4-1 depicts the process which was decided upon for the SEB to complete its assignment. Members of the SEB, chaired by the Program Control Office, included representatives from:

- a. Systems Engineering
- b. Test
- c. Pricing
- d. Software Development
- e. Program Control
- f. Software Cost Engineering
- g. Hardware Cost Engineering
- h. Subcontract Procurement

A Management Review Committee (MRC) was also established to review the results of the analysis of the SEB, receive the recommendations of the SEB and arrive at a final strategy for achieving the goal of the most effective subcontractor management. The Management Review Committee included the Program Control Manager, Subcontracts Manager, Engineering and Software Managers.

The SEB members prepared the Statements of Work (SOW) for each of the subcontractors and reviewed each of the requirements for responsiveness to program needs. The SEB also reviewed the contractual requirements prepared by the Subcontractor Procurement staff. The SOW, contractual requirements and a request for proposal was given to each of the subcontractors.

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Figure 5.4-1

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Several days were scheduled prior to the briefing of each subcontractor to permit a thorough review within each of the companies and to permit formation of questions. The briefing of each of the subcontractors involved their program managers, technical and pricing people. The SOW was reviewed section by section and all questions resolved to assure that a meeting of the minds was achieved.

While the subcontractors were preparing their proposals [] prepared budgets for the work levied on the subcontractors. The results of these budgets resulted in an [] "should cost" position for each proposed subcontract. In addition, Hardware and Software Cost Engineering were briefed on the content of each SOW so that their evaluation would be available to add to the equation.

Following receipt of each subcontractor proposal, copies were made available to each member of the SEB. Sufficient time was scheduled to permit an in-depth analysis by each team member. Following the analysis work, a meeting of the SEB was held to coalesce the board's findings into a well organized presentation for the Management Review Committee. A meeting was then held with the MRC and a strategy developed for debriefing the subcontractors.

A meeting with each of the subcontractors was held to review, in detail, the SEB findings. A thorough scrub of the proposals was achieved and detailed direction provided to the subcontractors to permit them to provide a revised proposal in consonance with the direction provided.

Revised proposals were received from each of the subcontractors and these were analyzed by the SEB. A data base was established for each proposal which will permit detailed fact finding in the future. A product of the analyses and data base is the ability to establish a rational risk position to apply to the subcontractor's price for inclusion in the [] proposal to the Government. An orderly process of communicating with the subcontractors and within [] has been achieved. This work has resulted in a well defined SOW and a reasonable price to the Government.

5.5 Cost Substantiation Data

The following paragraphs present a discussion of cost estimating substantiation/rationale data in two of the CWBS cost categories:

- a. System Engineering
- b. Software Development

These discussions highlight the method and detail that have been applied to substantiate the cost data contained in this proposal.

Detailed cost estimating substantiation/rationale data for all CWBS level 3 work packages are provided in Appendix C1.

5.5.1 System Engineering Estimating Rationale

A total system engineering effort of 1,440 man months is budgeted over the period May, 1982 through September 15, 1985. This effort is approximately 16 percent of the total project labor, which is consistent with our previous experience on large, complex projects.

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The effort commences at contract start at 57 persons and peaks at 66 persons in September-October, 1982 prior to and during the PDR period for the BOC phase. Following completion of PDR, the staffing level drops to 35 persons and holds at this level through completion of the CDR for the IOC and FOC phases (these CDRs occur side by side and finish December 30, 1983).

Following this point, the level is at 18 and gradually drops, to a level of 6 persons in August-September, 1985.

An estimating rationale sheet for one of the principle system engineering tasks is included here as Figure 5.5.1-1.

D/C SEGMENT ESTIMATING RATIONALE

TASK NAME/WBS #: Analysis/342200

TASK DESCRIPTION: Perform Requirements Analysis and Traceability (CDRL 119), Performance Analysis (Perform Technical Measurements - CDRL 155), RMA Analysis, Trade Studies, Engineering Specialties, prepare Engineering Technical Notes (CDRL 120), and provide intersegment interface definition and requirements definition.

SCHEDULE & MANPOWER DISTRIBUTION: (150 MM) Maintain a five (5) to six (6) person level from start of contract until last CDR is complete in 12/83. Reduce to a 2-3 person level and maintain until IOC hardware/software is installed and checkout completed in 3/85 then reduce to 1 person level until 9/85.

LABOR CATEGORY: System Engineering - Analyst

BASIS OF ESTIMATE: Performance of requirements analysis, generation and maintenance of CDRL 119 (Requirements Traceability and Verification Matrix), and monitoring of subcontractor performing requirements analysis is estimated at 37 man months from contract start until FOC accept. Performance analysis, generation and maintenance of CDRL 155 (Technical Performance Measurements) and monitoring of performance analysis subcontractor is estimated to require 37 man months from contract start until FOC accept. The RMA analysis for BOC and updates for IOC and FOC are estimated to require 5 man months. Trade studies, providing engineering specialties and generation of engineering technical notes (CDRL 120) are estimated to require 17 man months. Intersegment interface definition and requirements definition are estimated to require a 2-3 person level until completion of the last CDR (12/83) and then $\frac{1}{2}$ to $\frac{1}{4}$ person level until FOC accept for a total of 53 man months. Source: Engineering estimates based on previous experience with similarly complex programs.

Figure 5.5.1-1

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5.5.2 Software Development Estimating Rationale

CPCI Design/Development and Code/Unit Test

All software application code estimates were examined, where possible at the CPC level, and characterized in complexity terms. Source lines-of-code were estimated in the framework of the existing UNIVAC COBOL code (contractor-performed audit completed December 12, 1981). The existing code has 7% comments, hence ELOC's (Executable lines-of-code) equal 0.93 SLOC's.

Three levels of development complexity were used for characterization purposes:

1. High: Many interfaces and/or 'complex' algorithms.
2. Medium: Typical NPIC applications of DBMS interfaces.
3. Low: Data reduction type software.

Base productivity for newly developed code by complexity was determined by reference to our past performance for similar projects as follows:

High	-	200 ELOCs/MM	-	220 SLOCs/MM
Medium	-	250 ELOCs/MM	-	275 SLOCs/MM
Low	-	300 ELOCs/MM	-	330 SLOCs/MM

From these summary figures, the productivity tables in Figure 5.5.2-1 were constructed. Referring to the category "New Code - High Complexity", the figure indicates, for example, that the design activity proceeds at the rate

of 550 SLOCs $\left(\frac{220}{.40}\right)$ per man month; code and unit test activity proceeds at the rate of 620 SLOCs $\left(\frac{220}{.35}\right)$ per man month, etc.

Productivity Assists: For new S/W whose size estimates were either derived from existing S/W or determined from a comparison to existing S/W, we assumed double productivity for the design activity only (because a model for design exists).

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Productivity Tables

New Code - High Complexity (220 SLOCs/MM) → 275

<u>ACTIVITY</u>	<u>% OF TOTAL</u>	<u>PRODUCTIVITY</u>	
		<u>BASE</u>	<u>W/ASSIST*</u>
Design	40%	550 SLOCs/MM	(1100 SLOCs/MM*)
Code and Unit Test	35%	630	630
Integration and Test	10%	2200	2200
Support T and V	10%	2200	2200
As built doc.	5%	<u>4400</u>	<u>4400</u>
Aggregate Rate (from previous page)		220	275

New Code - Medium Complexity (275 SLOCs/MM) → 345

<u>ACTIVITY</u>	<u>% OF TOTAL</u>	<u>PRODUCTIVITY</u>	
		<u>BASE</u>	<u>W/ASSIST*</u>
Design	40%	690 SLOCs/MM	(1375 SLOCs/MM*)
Code and Unit Test	35%	785	785
Integration and Test	10%	2750	2750
Support T and V	10%	2750	2750
As built doc.	5%	<u>5500</u>	<u>5500</u>
Aggregate Rate (from previous page)		275	345

New Code - Low Complexity (330 SLOCs/MM) → 415

<u>ACTIVITY</u>	<u>% OF TOTAL</u>	<u>PRODUCTIVITY</u>	
		<u>BASE</u>	<u>W/ASSIST*</u>
Design	40%	825 SLOCs/MM	(1650 SLOCs/MM*)
Code and Unit Test	35%	945	945
Integration and Test	10%	3300	3300
Support T and V	10%	3300	3300
As built doc.	5%	<u>6600</u>	<u>6600</u>
Aggregate Rate (from previous page)		330	415

*Design productivity doubles if a model exists for the S/W in the baseline system.

Figure 5.5.2-1 (1 of 2)

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Productivity Tables

Modified code - Use base column for new code by complexity, except double the design and code and unit test productivity components.

Converted code -

Design	3300 SLOCs/MM
Code and Unit Test	(Purchase at a cost of \$3/line)
Integration and Test	4400 SLOCs/MM
Support to T and V	On Service Level 4 (see below)
As built doc.	No cost

Retained (Univac) code -

Design	No cost
Code and Unit Test	No cost
Integration and Test	4400 SLOCs/MM
Support to T and V	On Service Level 4
As built doc.	No cost

Note: "Support to T and V" is problem analysis and error correction (PAEC), through FQT. PAEC thereafter is on a service level with the following guidelines:

Service Level 1	-	1st 6 months	-	1 person/10 KSLOCs/month
2	-	2nd 6 months	-	1 person/20 KSLOCs/month
3	-	2nd year	-	1 person/30 KSLOCs/month
4	-	thereafter	-	1 person/40 KSLOCs/month

Figure 5.5.2-1 (2 of 2)

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Applying these data to the code count estimates, man month estimates and resultant aggregate productivities per CPCI were derived and are tabulated in Figure 5.5.2-2.

		KSLOCs			MM			PRODUCTIVITY		
		N&M	R&C	Total	N&M	R&C	Total	N&M	R&C	Total
Pre-Exploitation	- BOC	103	28	131	358	14	372	288	2000	352
BEPPRE	- IOC	1	7	8	5	4	9	200	1750	888
	- Total	104	35	128	363	18	381	287	1944	336
Exploitation Mgmt	- BOC	67	26	93	208	5	213	322	5200	437
BEMGMT	- IOC	14	32	46	51	16	67	275	2600	687
	- Total	81	58	76	259	21	280	313	2760	271
Exploitation Spt	- BOC	31	133	164	82	30	112	378	4400	1460
BEXSUP	- IOC	48	2	50	201	1	202	239	1750	248
	- Total	79	135	50	283	31	314	279	4350	159
Exploitation Results	- BOC	7	21	28	19	5	24	268	4200	1170
BERESU	- IOC		21	21		6	6		3500	3500
	- Total	7	42	21	19	11	30	268	3800	700
Data Manipulation	- BOC	21	88	109	54	20	74	389	4400	1470
BMANIP	- LOC	6	80	86	18	42	60	333	1900	1430
	- Total	27	168	86	72	62	134	375	2700	642
Statistics Reporting	- BOC	7	23	30	22	5	27	318	4600	1100
BSTATR	- IOC	2	18	20	5	10	15	400	1800	1330
	- Total	9	41	20	27	15	42	333	2700	475

Figure 5.5.2-2 (1 of 2)

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		KSLOCs			MM			PRODUCTIVITY		
		N&M	R&C	Total	N&M	R&C	Total	N&M	R&C	Total
Materials Mgmt	- BOC		15	15		6	6		2500	2500
BMMGMT	- IOC	1	8	9	4	4	8	250	2000	1120
	- FOC	7		7	30		30	233		233
	- Total	8	23	16	34	10	44	235	2300	364
Command and Control	- BOC	4		4	18		18	222		222
BCCNTR	- IOC	20		20	87		87	230		230
	- FOC	12		12	50		50	240		240
	- Total	36		36	155		155	232		232
Query Spt	- BOC	3	40	43	12	14	26	250	2850	1650
BQUERY	- IOC	16	23	39	71	12	83	225	1900	470
	- Total	19	63	39	83	26	109	229	2400	358
Host Appl Spt	- BOC	17	51	68	71	12	83	239	4250	819
BAPPLS	- IOC		29	29		16	16		1800	1810
	- Total	17	80	29	71	28	99	239	2850	293
DBM Appl Spt	- BOC	11		11	41		41	268		268
BDMAPS	- IOC	8		8	33		33	242		242
	- Total	19		16	74		74	257		216
Test and Training Spt	- BOC	35	6	41	121	2	123	289	3000	333
BTTDEV	- IOC	8	5	13	27	1	28	296	5000	464
	- FOC	5		5	17		17	294		294
	- Total	48	11	48	165	3	168	291	3700	286
WS Application	- BOC	35		35	172		172	203		203
WAPPLS	- IOC	141		141	540		540	261		261
	- Total	176		176	712		712	247		247

Figure 5.5.2-2 (2 of 2)

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The cost components covered by these productivities as related to the CWBS are:

- a. Preliminary Design
 - o Prepare data dictionary
 - o Prepare preliminary Part II Specs
- b. Critical Design
 - o Prepare build-to Part II Specs and conduct internal design reviews
 - o Prepare preliminary Programmer's Manual
- c. Development
 - o Develop CPC's
 - o Code and unit test
 - o Integrate and test to CPC level
- d. Test
 - o Support test and verification
- e. Documentation
 - o Prepare inputs to user, Operator and Data Base Administration Manuals
 - o Prepare as-built CPCI listings
 - o Prepare Programmer's Manual (Final)
 - o Prepare inputs to Training Manuals
 - o Prepare as-built Part II Specs

CPCI Test and Verification

Based on experience on recent large programs, test and verification activity for software CPCIs has been observed to follow the average productivity rates in the table below.

STAT

Test Man-Months Required per Line of Code (LC)

<u>CODE TYPE</u>	<u>LC/MM</u>
New	1500
Modified	2500
Converted	3500
Retained	0

Using these rates and using estimated line-of-code counts for D/C Segment, the testing effort for each CPCI was calculated. Another estimating relationship - that testing and verification should run approximately 20% of the software development effort - was calculated for each CPCI and used as a basis for checking reasonableness. To arrive at the level 3 CWBS estimates, the CPCI

test and verification manpower was further spread in accordance with the following table based on historical actuals.

<u>Plans</u>	<u>Procedures</u>	<u>Test and Verify</u>	<u>Report</u>
15%	35%	45%	5%

Figure 5.5.2-3 gives an example of a cost rationale sheet which explains and substantiates our estimated labor to fully test and verify one CPCI. Similar cost rationale data for all application CPCI's is contained in Appendix C1.2.

Figures 5.5.2-4, 5 and 6 summarize these data for the application CPCIs for the BOC, IOC and FOC phases respectively.

D/C SEGMENT ESTIMATING RATIONALE

TASK NAME/WBS #: CPCI BEPPRE - BOC (WP 343200)

TASK DESCRIPTION: Prepare CPCI test plan (preline and final), develop SW test procedures, support test and verification and prepare test reports.

SCHEDULE & MANPOWER DISTRIBUTION: (74.1 MM) Rate Method. Effort is initiated 30-60 days before PDR, reaches a peak of 6.5MM at PQT for two to four months then end with the test report.

LABOR CATEGORY: (e.g. S/W DEVEL., PROGRAM OFFICE, SYSTEM ENGINEER) Test and verification.

BASIS OF ESTIMATE: Est 10^3 LOC = 126

	Estimating Method	Productivity Rate	20% of SW Effort
CPCI			
BEPPRE		74.1	78.7

MM estimates are based upon divisional historical data for production actuals.

Figure 5.5.2-3

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Cost Substantiation Data for
CPCI Test and Verification

CPCI	KSLOC	<u>BOC Phase</u>		WBS LEVEL 3
		MM EST	PEAK MANPOWER	
BEPPRE	103	74.1	6.5	343200
BEMGMT	67	43.8	4.6	343201
BERESU	7	3.8	1.4	343202
BMANIP	21	11.3	1.3	343204
BSTATR	7	4.4	1.0	343205
BCCNTR	4	2.7	0.5	343208
BQUERY	3	1.2	0.2	343209
BAPPLS	17	10.2	1.5	343210
BDMAPS	11	7.3	0.6	343211
BTTDEV	35	23.3	2.5	343212
WAPPLS	50	33.3	3.5	343213
BEXSUP	31	16.3	2.3	343214
TOTALS		231.7		

Figure 5.5.2-4

CPCI	KSLOC	<u>IOC Phase</u>		WBS LEVEL 3
		MM EST	PEAK MANPOWER	
BEPPRE	8	2.6	1.1	344200
BEMGMT	46	18.4	2.0	344201
BMANIP	86	26.8	3.0	344203
BERESU	21	6.0	2.0	344202
BSTATR	20	6.4	1.2	344204
BMMGMT	9	2.9	0.6	344206
BCCNTR	20	13.3	2.0	344207
BQUERY	39	17.2	2.7	344208
BAPPLS	29	20.1	2.8	344209
BDMAPS	8	5.3	0.5	344210
BTTDEV	13	6.7	1.0	344211
WAPPLS	222	120.8	9.0	344212
BEXSUP	50	32.6	2.8	344213
TOTALS		279.1		

Figure 5.5.2-5

CPCI	KSLOC	<u>FOC Phase</u>		WBS LEVEL 3
		MM EST	PEAK MANPOWER	
BMMGMT	7	7.6	1.4	345200
BCCNTR	12	8.0	1.6	345201
BTTDEV	5	3.3	1.0	354202
TOTALS		18.9		

Figure 5.5.2-6

COST DRIVERS

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SECTION 6
COST DRIVERS

This section provides a discussion of all cost drivers that have a significant impact on the acquisition costs presented in this proposal. A brief description of the cost driver and its relationship to the D/C Segment design or development effort is included along with explicit references to all affected GWBS elements. References to discussions in the Technical and Management Volumes are also provided as appropriate.

6.1 Cost Driver: Hardware Configuration to Meet Performance, Design Margin and Availability Requirements.

Proposed Cost: (CPU Costs without Peripherals)

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GWBS Reference: 4.9.1 ADPE Procurement

Technical Proposal Reference: 4.1.4 Single-Exploitation Task Distributed (STD) Alternate
4.2.3 Recommended Architecture
5.3 Hardware
6.3 RMA Analysis

Management Proposal Reference: None

Cost Factors: The hardware configuration to meet specified performance includes two host processors to satisfy batch and interactive workloads which occur simultaneously and to meet stipulated response times. In order to meet the further requirement for design margin for growth, the hosts' maximum processing rate is increased.

In order to meet the additional requirement for availability and no single point of failure, a third (backup) processor with more channel and disk drive capacity are added.

These factors are reflected in the table below along with percent-range of total processor cost represented by each.

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6.2 Cost Driver: Integrated Work Station - CID

Proposed Cost:

GWBS Reference: 4.6 Hardware Development - BOC
4.7 Hardware Development - IOC
4.8 Hardware Development - FOC

Technical Proposal Reference: 4.2.3 Recommended Architecture
5.8 Integrated Work Station

Management Proposal Reference: 5.4 IWS Hardware Development Plan

Cost Factors: Advanced capabilities of the new Integrated Work Station Collateral Information Display (CID) are provided for 500 analyst positions. The design includes 1024 x 1024 x 12 bit video resolution and hard disk storage capacity of 80 megabytes. Cabinets require full TEMPEST shielding. These factors are reflected in the table below.



6.3 Cost Driver: Number of Integrated Work Stations

Proposed Cost:

GWBS Reference: 4.6 Hardware Development BOC
4.7 Hardware Development IOC
4.8 Hardware Development FOC

Technical Proposal Reference: 5.3 Hardware
5.8 Integrated Work Station

Management Proposal Reference: 5.4 IWS Hardware Development Plan

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Cost Factors: In total, 1,000 analyst positions are equipped with the new IWS capabilities. Three types of work stations and their proposed costs are indicated in the table below:

STAT

6.4 Cost Driver: Software Development BOC

Software development effort leading to BOC will produce a total of 316,000 new and modified source lines at code (SLOC's) and 23,000 converted SLOC's.

Proposed Cost:

STAT

GWBS Reference: 4.3 Software Development BOC

Technical Proposal Reference: 5.4 Software
5.5 Data Base
5.8 Integrated Work Station

Management Proposal Reference: 5.3 Software Development Plan

STAT

6.5 Cost Driver: Software Development IOC

Software development effort leading to IOC will produce a total of 265,000 new and modified source lines of code (SLOC's) and 225,000 SLOC's of converted code.

Proposed Cost:

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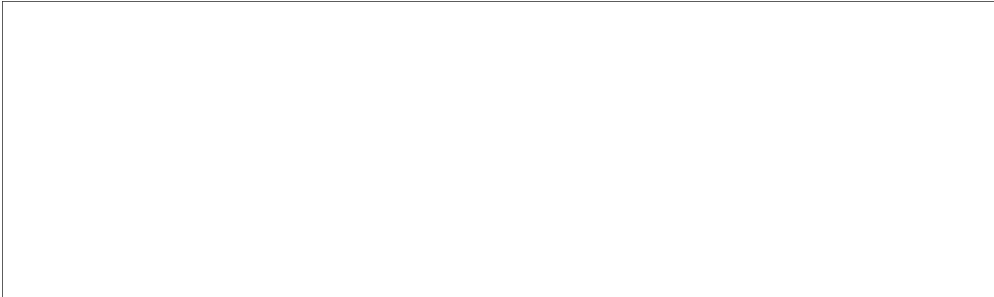
GWBS Reference: 4.4 Software Development IOC

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Technical Proposal Reference: 5.4 Software
5.5 Data Base
5.8 Integrated Work Station

Management Proposal Reference: 5.3 Software Development Plan



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6.6 Cost Driver: Development and Test Facility

The Development and Test Facility at the Plant will consist of three host CPU's with peripherals and approximately 90 terminals for development. Facility operations during peak development and test periods are planned and costed for three shift, seven day per week operations.

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Proposed Cost:

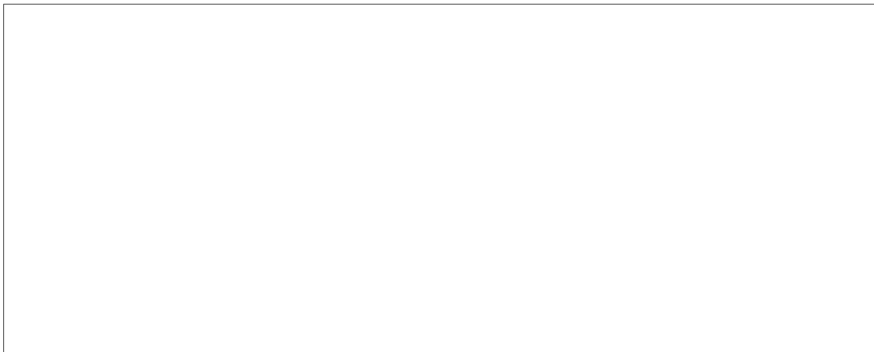
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GWBS Reference: 4.16 Development and Test Facility

Technical Proposal Reference: None

Management Proposal Reference: 5.3 Software Development Plan
5.5 Verification and Test Plan

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6.7 Cost Driver: Operations and Maintenance IOC and FOC

Operations and maintenance by the contractor following completion of D/C Segment IOC and extending through July, 1988, will include (1) level-of-effort labor for hardware and software maintenance; (2) purchased commercial hardware maintenance; and (3) purchased commercial software licensing and software service charges.

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Proposed Cost:

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GWBS Reference: 4.18 Operations and Maintenance

Technical Proposal Reference: None

Management Proposal Reference: 5.6 Operations and Maintenance Plan

Cost Factors:

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FEE PROVISIONS

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SECTION 7
FEE PROVISIONS

7.1 Award/Incentive Fee Plan Highlights

proposes an Award/Incentive Fee Plan with the following highlights.

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a. Proposed Fee

1. Base Fee - 3% of the estimated cost of the contract exclusive of Commercial Selling Price items.
2. Award Fee Pool - 12% of the estimated cost of the contract exclusive of Commercial Selling Price Items.

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b. Award Fee Performance Measurement Categories

1. Schedule - 25% weight - with special emphasis on meeting M84 -Base Operating Capability schedule.
2. System Management - 25% weight - with emphasis on program control, responsiveness to NPIC Program Office, efficient staffing, and quality of the product.
3. Segment Interface Management - 20% weight - with emphasis on effective interaction with other segment contractors.
4. Cost Effectiveness - 20% weight - with emphasis on developing product to specification within budget.
5. Subcontract Management - 10% weight - with emphasis on ability to effectively and efficiently manage its subcontractors to produce an optimum product.

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c. Award Fee Plan (See paragraph 7.2)

1. Government Award Fee Evaluation Organization
2. Award Fee Evaluation Process
3. Performance Measurement Categories
4. Evaluation Guidelines
5. Payment Provisions

d. Special Schedule/Cost Incentive Fee Bonus/Penalty (See paragraph 7.2.18 following)

1. Aimed at incentivizing to meet Basic Operating System (M 84) Schedule and cost.

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7.2

AWARD/INCENTIVE FEE PLAN

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7.2.1 Introduction

This Award Fee Evaluation Plan is designed to serve as the basis for the NPIC Program Office evaluation of the quality, timeliness and cost effectiveness of the Contractor's performance on the D/C Segment of the NPIC Program.

7.2.2 Organization

The participating organizations/individuals responsible for the Award Fee process are as follows:

- a. The Fee Determining Official is (TBD). The FDO shall establish an Award Review Board (ARB) to assist in the determination of the Award Fee. A Recorder shall be appointed to consolidate and document the Award Fee evaluation.
- b. The NPIC Program Office will provide evaluation monitors to evaluate the Contractor's performance. Evaluation monitors will be assigned specific Performance Measurement Categories (PMCs) to evaluate.

7.2.3 Award Process

The award process shall consist of the following steps:

- a. Evaluation by designated evaluation monitors.
- b. Consolidation of evaluation monitor reports by the Recorder.
- c. Evaluation and recommendation by the ARB.
- d. Award Fee Determination by THE FDO.
- e. Modification of the contract by the Contracting Officer.

7.2.4 Award Review Board

The ARB will be chaired by the (TBD). Board members are approved by the FDO.

AWARD REVIEW BOARD MEMBERSHIP

The following members constitute the Award Review Board:

(TBD)

The ARB will convene on dates and at the times and places established by the Chairman to consider information submitted from various sources, including:

- a. Evaluation by designated evaluation monitors.
- b. Assessment of informal inputs from other sources as considered necessary or appropriate by the ARB.

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- c. The Contractor may be called on to make an assessment of its performance during the period under consideration at the prerogative of the Chairman of the ARB. Any documentation regarding a self assessment will be submitted, in writing, by the Contractor to the Principal Contracting Officer (PCO).

7.2.5 Frequency of Evaluations and Fee Determinations

- a. Award Fee evaluations shall be conducted at six (6) month intervals. The FDO and members of the ARB, at their discretion, may conduct additional evaluations at times other than the completion of the evaluation periods as described above.
- b. The ARB will normally complete their evaluation and make a recommendation to the FDO within two weeks following the close of an evaluation period.
- c. Award Fee Determination and appropriate contract modifications issued will be made within four weeks of the completion of the evaluation period under consideration.

7.2.6 Fee Allocations by Evaluation Period

- a. In addition to the base fee set forth elsewhere in the contract, the Contractor may earn Award Fee for the periods and in the amounts indicated below:

<u>Evaluation Period</u>	<u>Award Fee-- Not-to-Exceed</u>
(TBD)	(TBD)

- b. The maximum amount the Contractor may earn for any evaluation period shall be the amount shown under the not-to-exceed column for each evaluation period, except that any unearned award fee for any given period shall be rolled-over to successive periods for potential award through contract completion.

7.2.7 Fee Evaluation Process--Specific Responsibilities

- a. Fee Determining Official (FDO).

The FDO shall (1) review the recommendation of the ARB, (2) consider all appropriate data, and (3) determine the specific amount of fee to be awarded to the Contractor.

- b. Award Review Board (ARB).

1. The ARB will perform the evaluation of the Contractor's performance over any given period by (1) reviewing evaluation monitor reports, (2) considering all information obtained from other pertinent sources, (3) reviewing the Contractor's

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performance as measured against the Award Fee Performance Measurement Categories, (4) having, at the discretion of the ARB, the Contractor brief the ARB on those aspects of the Contractor's performance relevant to the determination of the Award Fee for the subject period, and (5) reviewing, if determined necessary by the ARB Chairman, the Contractor's written documentation describing the Contractor's performance for the subject period.

2. The ARB may, at the option of the Chairman, discuss preliminary evaluation findings with the Contractor and consider any additional data provided by the Contractor.
3. The ARB will make a fee recommendation, by letter, to the FDO.

c. Evaluation Monitors.

Evaluation monitors shall maintain an informal written record of the Contractor's performance in their area(s) of responsibility. They will note those instances in which the Contractor's performance is considered to be more or less than satisfactory, and should reference correspondence, reports, data items, meetings, and conversations which serve to demonstrate the Contractor's day-to-day performance of the contract objectives. Evaluation monitors shall normally, within five work days following each evaluation period, review the back-up material and prepare an Award Fee score by use of the applicable Annex for their respective PMC using the form in the attached appendix. The monitor's evaluation, and point scores will be forwarded together with narrative remarks, to the ARB. Remarks shall include specific comments concerning the Contractor's strong and weak performance in the PMC or functional area for which the evaluation monitor is responsible. A separate paragraph shall be devoted to a general assessment of the Contractor's performance during the subject evaluation period. When appropriate, monitors will include comments applicable to PMCs or functional areas other than their own area. Each monitor shall obtain inputs from as many sources as possible to arrive at a complete, accurate and unbiased picture of the Contractor's performance. Any informal records made in preparation of the monitor's evaluation report will be retained by the monitor to support any inquiries made by the ARB or the FDO.

Evaluation monitors will point out areas where it is felt improvement in the Contractor's performance should be forthcoming or would be advantageous to the Government.

d. Award Review Board Recorder.

The principal duties and responsibilities of the Award Review Board Recorder are set forth below:

1. Insure timely submittal of evaluation monitor inputs to the ARB and to the Chairman of the ARB.

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2. Upon completion of the Award Fee Evaluation Periods outlined in paragraph 6 above, with the assistance of the evaluation monitors, prepare a briefing and a written report, complete with recommendations, to be presented to the ARB.
3. Maintain cognizance of the Contractor's performance in all Performance Measurement Categories.
4. Direct the efforts of the monitors and provide them with guidance to insure standardization in reporting and evaluating.
5. In conjunction with the evaluation monitors, devise the format and frequency of data collecting/reporting.
6. Receive and review the monitors written report. The Recorder should, at the close of each evaluation period, consolidate and summarize these reports augmenting them with personal knowledge as appropriate.
7. Keep the ARB Chairman appraised of the Contractor's performance with special emphasis on exceptional events or performance.
8. Maintain the Award Fee evaluation files.

7.2.8 Discrepancy Reporting

The ARB Chairman shall hold meetings with evaluation monitors midway through each evaluation period. Evaluation monitors shall point out those areas where improvement is expected or required and areas where Contractor performance is of superior quality. The purpose of these meetings is to aid the Chairman of the ARB in making a determination as to the necessity of issuing a letter informing the Contractor of areas where improvement is required and/or commending the Contractor for superior performance. The Contractor is required to respond to the Government's notification of a discrepancy in a timely manner and not later than 30 days following the Government's notification. The Contractor's response shall include plans for increasing effectiveness in the areas requiring improvement. Evaluation monitors should be thorough in highlighting, to the ARB Chairman, areas where the Contractor's performance is outstanding as well as areas where performance improvement is required.

7.2.9 Performance Measurement Categories

Performance Measurement Categories are designed to measure the Contractor's performance in certain key areas as determined by the Government.

Performance Measurement Categories (PMCs) shall be the following:

<u>PMC</u>	<u>Relative Weights</u>
a. Schedule	25%
b. System Management	25%
c. Segment Interface Management	20%

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- d. Cost Effectiveness 20%
- e. Subcontract Management 10%
- a. Schedule will consider the Contractor's performance relative to milestones established for critical contractual actions, (e.g. M84 schedule achievement, IOC, Interim Milestones, and the Contractors responsiveness and flexibility in reacting to schedule modifications).
- b. System Management will consider the Contractor's responsiveness to NPIC Program Office direction, and the Contractor's ability to identify problems in a timely manner, and propose and implement resolutions in an innovative and efficient fashion. The Contractor's ability to staff the effort with competent people, familiar with modern programming methodologies and design standards, will be evaluated. The overall management, control and status of the system development, as communicated to the NPIC Program Officer, will be evaluated. The final evaluation will consider overall system performance, including response time, system availability and reliability, and mean-time-to-restore the system.
- c. Segment Interface Management will consider the Contractor's ability to effectively interface with the other Segment Contractors in implementing inter-Segment interface requirements.
- d. Cost Effectiveness will consider the contractor's ability to implement budgets and cost reporting systems in a timely manner. Contractor's cost effectiveness and ability to maintain costs within projected budgets will be evaluated.
- e. Subcontract Management will consider the Contractor's ability to effectively manage subcontractor allocated tasks, to identify problems in a timely manner, and to propose and implement resolutions with the Subcontractor in an innovative and efficient fashion.

7.2.10 Computation of Award Fee

- a. In order to provide a consistent approach for Award Fee performance evaluation, specific descriptive ratings scored on a percentage basis, accompanied by a narrative input, will be utilized.

<u>Descriptive Rating</u>	<u>Point Score</u>
Excellent	91-100
Very Good	76-90
Good	51-75
None of the Above	1-50

- b. The rating system and earned Award Fee are designed to direct timely Contractor attention to areas where good performance should be continued and unsatisfactory performance improved. The Award Fee

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evaluation system is designed to incentivize the superior oriented Contractor performance that the NPIC Program Office expects. The Government will be flexible in developing descriptive ratings and scores. For instance, to achieve an excellent rating in any one of the PMCs the Contractor need not fulfill the requirements for excellence stated for every criterion within the PMC. Trade-offs between conflicting evaluation criterion and the inevitability of some minor problems will be considered in determining an overall earned Award Fee. The Contractor will not be penalized for events that are beyond his control, (i.e. events dependent on Government action or action by other Contractors.) The Award Fee is designed to provide an incentive for superior performance on the part of the Contractor; therefore, no Award Fee will be paid for marginal performance. In order to preclude the payment of Award Fee for marginal performance, no Award Fee will be earned by the Contractor for scores equal to or below 50. For every point increase between 50 and 75 points, the Contractor will earn 3 percentage points of the Award Fee pool available in the relevant period. Thus, for a score of 75 the Contractor earns 75 percent of the available Award Fee. For every point score increase, between 75 and 100, the Contractor will earn 1 percentage point of the Award Fee available in the relevant period. Figure 2 represents a graphical depiction of the correlation between earned Award Fee and score. Award Fee determinations are not subject to the disputes clause of the contract.

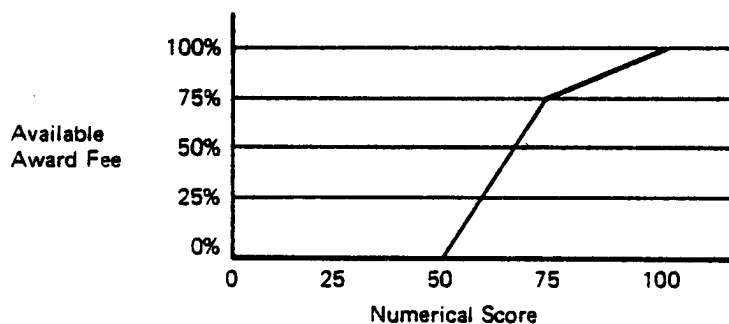


Figure 2

7.2.11 Termination

In the event this contract is terminated pursuant to the clause entitled, "Termination", Award Fee is payable only to the extent earned through the last evaluation period completed prior to termination.

7.2.12 PMC Guidelines for Rating Schedule

a. Good

1. Consistently meets the scheduled milestone dates and CDRL deliveries.
2. Anticipates and insures necessary changes to schedule are defined in a timely manner and adhered to.

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3. Performs risk analysis and assesses the impact of schedule changes on all levels of the program.
 4. Effectively utilizes available resources and is flexible in applying resources to critical path schedule items.
 5. Communicates schedule risk areas and proposed action to the Program Office well in advance of required action.
- b. Very Good
1. All of a.
 2. Seeks data to identify potential problems before the schedule is impacted.
 3. Employs early corrective action, risk assessment, and planning to preclude potential delays in the schedule.
 4. Assesses and provides accurate and timely analysis of all proposed or required schedule changes.
 5. Occasionally ahead of schedule with no adverse affect on cost or performance.
- c. Excellent
1. All of b.
 2. Schedule dates are met early with no adverse affect on cost or performance.
 3. Implements required schedule changes smoothly without adverse affect on cost or performance.
 4. Completes major milestones ahead of schedule dates in such a manner as to cause the accrual of benefits to the program.
- 7.2.13 PMC Guidelines for Rating System Management
- a. Good
1. Contractor management takes timely and proper steps to resolve problems areas, respond to action items, and Program Office requests for information.
 2. Contractor has maintained adequate staffing levels to maintain schedule and acceptable quality of work.
 3. Contractor management communicates freely with NPIC management and takes the initiative to understand Program Office policies and procedures, and works within those policies and procedures where applicable.

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4. Contractor demonstrates control of system engineering effort, demonstrating ability to design and develop a well thought out system with a minimum of discrepancies in inter/intra hardware/software/firmware interfaces.
 5. Contractor management emphasizes transition planning to insure it increases in thoroughness as design develops and is responsive to changes dictated by design or by NPIC Program Office requirements.
- b. Very Good
1. All of a.
 2. Contractor goes well beyond more than expected effort to analyze and resolve all problem areas, and obviously takes the initiative to have meetings or discussion to force resolution of problems.
 3. Contractor goes well beyond what would normally be expected in responding to Program Office direction. For example, by offering better alternative solutions, initiating technical interchange meetings, or increasing or changing staffing.
 4. Contractor management demonstrates a thorough understanding of every aspect of the effort to be accomplished. For example, has implemented excellent procedures to control cost and schedule and shows willingness and the capability to insure procedures are followed and accurately reflect program status; has implemented excellent systems engineering controls and record-to-date demonstrates that the total system design effort is completely coordinated and successful; has implemented a successful software development plan, and has demonstrated willingness and capability to follow that plan.
- c. Excellent
1. All of b.
 2. Contractor management, in the evaluator estimation, is far better than experience indicates is the norm. For example, management anticipates problem areas early and either resolves, or establishes realistic timelines for resolution that minimize impact on the program; management places great emphasis on system design and development to minimize contract and life cycle costs; management takes great effort to insure system baseline changes are quickly comprehended and every effort made to minimize cost and schedule impacts in negotiating and implementing changes; management insures every effort is made to communicate with the NPIC manager all problems internal to the contractor's organization that adversely impact the program effort.
- 7.2.14 PMC Guidelines for Rating Segment Interface Management
- a. Good
1. Contractor generally satisfies all interface requirements though some NPIC Program Office guidance or corrective action is required.

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2. Actively develops and supports interface definitions and requirements coordination with respect to both the letter and intent of requirements. Actively supports Interface Control Working Groups (ICWG) and Interface Control Documents (ICDs).
- b. Very Good
1. All of a.
 2. Satisfies interface definition and requirements with little Program Office guidance or corrective action required. Sometimes proposes alternative solutions or interface definitions. Takes the initiative in resolving interface problems and insuring that all interfaces are accounted for and defined.
 3. Deliveries of both hardware and software are adequately defined and documented to facilitate segment interface management. All deliverables are responsive to the interface demands of the involved organizations.
 4. Qualified personnel are available to help resolve special interface problems following the various hardware and software deliveries.
- c. Excellent
1. All of b.
 2. Performs and in fact seeks out comprehensive interfacing with the NPIC Program Office. Anticipates and requests Program Office assistance in defining and successfully managing all interfaces in a timely manner to permit effective coordinated action.
 3. Takes initiative and implements interface requirements without guidance or correction action from the Program Office. Provides excellent and clearly described alternatives for more efficiently or more effectively meeting requirements. Alternatives are thoroughly researched and backed by cogent and well communicated analysis.
 4. Interface problems are identified early, alternatives presented and thoroughly researched, and solutions implemented without adverse impact.

7.2.15 PMC Guidelines for Rating Cost Effectiveness

- a. Good
1. Contractor's initial budgets were established in a timely manner.
 2. PCMS (DAR 7000.10) was brought on line for contract within prescribed time frame.
 3. Contractor is tracking budget vs. actual cost from outset of contract.
 4. Contract financial reports are submitted in a timely manner.

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- b. Very Good
 - 1. All of a.
 - 2. Contractor's actual cost does not exceed budgeted cost by more than 10%.
 - 3. Contractor looks for ways to minimize costs through innovative cost control techniques.

- c. Excellent

- 1. All of b.
- 2. Contractor is on schedule with an acceptable product and is under-running budget.

7.2.16 PMC Guidelines for Rating Subcontract Management

- a. Good

- 1. Innovative management and flexibility provides resource concentration in high risk/potential problem areas.
- 2. Satisfactory control of subcontractor design, performance, and schedule. Integration of the subcontractor tasks is smooth and well orchestrated to preclude the need for adverse impact engineering design changes.
- 2. Early identification of problems, causes, and solutions which have a potential impact on program cost, schedule, and system performance. Solutions minimize adverse impacts.
- 3. Resolution of discrepancies in a timely manner.

- b. Very Good

- 1. All of a.
- 2. Performs detailed analysis of risk and potential problem areas to identify their impact on cost, schedule, and system performance. Prepares contingency plans for high risk, high impact potential problem areas.
- 3. The Program Office has access to cost, manpower, performance and risk analysis data to monitor the Subcontractors' as well as the Contractor's performance and progress.

- c. Excellent

- 1. All of b.

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- 2. Improved system performance and technical schedules are being achieved in many areas by excellent control of subcontractor design and development.
- 3. Effectiveness of management decision and leadership in problem resolution.
- 4. Accuracy, thoroughness and depth of problem resolution alternatives considered.

7.2.17 Award Fee Evaluation Form

Evaluation Monitor:

Date of Event/Activity Reported:

Performance Measurement Category

EVALUATION MONITORS ASSESSMENT

First Paragraph: (See attached checklist)

Describe what the contractor was supposed to do. Describe the activity in terms of what is desired as an end item or what the contractor would have to do to successfully complete the job. Is there a specific level of achievement desired?

Second Paragraph:

Tell what the contractor actually did.

Third Paragraph:

What was the impact, either good or bad, on performance, schedules and cost. Will there be an impact in the future as a result of what the contractor did?

Signature of Evaluator Monitor

Date

EVALUATION RECORDER'S ASSESSMENT

Further clarification of evaluators report including relation to other events, contractor's input, and impact as viewed by the coordinator.

Signature of Recorder

Date

EVENTS CHECKLIST

- 1. Did the contractor perform this activity with an unusual degree of competence?

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2. What was the impact of the early or late completion of this activity?
3. Did the contractor make an unusual effort to utilize manpower available?
4. What significant relationship exists between this activity and other events?
5. How important was the timeframe involved?
6. Did the contractor perform the effort on its own initiative or as a result of a specific technical direction?
7. Has the evaluator successfully demonstrated the difference between his/her interpretation of the event and what would normally be expected performance?
8. Are there any objective standards involved in the write-up? If so, what?
9. Has the evaluator clearly distinguished the contractor's performance in terms of ingenuity, creativity, and innovation?
10. Has the evaluator successfully demonstrated the impact of the event to all direct and indirect areas?
11. Did the evaluator take into consideration whether or not the government met its obligations in things such as timely resolution of issues, timely provision of direction as appropriate, timely delivery of government services or government furnished property, etc.

7.2.18 M84 Cost/Schedule Incentive

Special Schedule Incentive

Assuming achieves D/C Segment Basic Operating Capability (M84) in accordance with the contract specification and schedule, will receive an incentive fee equal to either 10% of the award fee (exclusive of base fee) previously granted by the Government through the period just prior to the M84 contract milestone, or the balance of the previously unearned award fee, whichever is less. Should fail to achieve Basic Operating Capability on the date specified in the contract schedule and the delay is attributable solely to and its subcontractors, then shall refund to the Government previously granted award fee in accordance with the table below. Any money refunded by will not be returned to the Award Fee Pool for potential award during later evaluation periods.

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Fee Refund-Schedule Delays

Delay (After M84 Contract
Schedule Date)

1-10 Days
11-20 Days
21-30 Days
31-40 Days

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Special Cost Incentive

Assuming [] achieves D/C Segment Basic Operating Capability (M84) within the negotiated target cost for BOC (original negotiated cost for BOC plus negotiated changes) at the M84 contract schedule date, [] will receive an incentive fee equal to either 10% of the award fee (exclusive of base fee) previously granted by the Government through the period just prior to the M84 contract milestone, or the balance of the previously unearned award fee, whichever is less.

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Should [] fail to achieve Basic Operating Capability within the negotiated contract cost for BOC, then [] shall refund to the Government previously granted award fee in accordance with the table below. Any money refunded by [] will not be returned to the Award Fee Pool for potential award during later evaluation periods.

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Fee Refund - Cost Overruns

Amount of Cost Overrun

- o .001% to 2% of Negotiated Target cost for BOC
- o 2.001% to 4%
- o 4.001% to 6%
- o 6.001% to 8%
- o 8.001% to 10%

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*Note - The maximum aggregate cost/schedule penalty to be paid by [] is \$1,000,000 or 20% of the award fee (exclusive of base fee) granted prior to the M84 contract schedule date, whichever is less.

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OFFEROR SCHEDULE OF
FUNDING REQUIREMENTS

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