AFCEA Spring '88 Symposium
"DCA Forecast To Industry"

Presented by the

Defense Communications Agency
In coordination with AFCEA International and the NOVA Chapter

Marriott Crystal Gateway
Arlington, Virginia
31 MARCH - APRIL 1, 1988
A NOTE OF THANKS

There are many people who are responsible for making this second annual DCA Forecast to Industry a success. As is usual with an effort of this scope, there are a few whose leadership and support have been essential.

Of course the DCA Forecast to Industry depends primarily upon the leadership of DCA. We would like to recognize LTG John T. Myers, the Director, DCA and Manager, NCS, whose vision and leadership made it a success. We also want to thank Mr. Ray Martone, DCA Competition Advocate, for his untiring efforts, and Ms. Susan Jimenez, the Activity Competition Advocate, who ensured that the needs of industry were carefully considered. A special thanks to each of the DCA speakers who shared their goals and programs with industry.

Another group that deserves recognition is the AFCEA/NOVA Chapter with Yale Weatherby, AYDIN, Chapter President. The AFCEA/NOVA team that provided direct support includes:

- Curt Bassett, PRC, who provided outstanding support as the AFCEA/NOVA Vice President for Special Events
- Bob Lord, ELS, who handled finances
- Gale Nellans, Geodynamics, who worked registration and security
- George Bafundo, GTE, who managed publicity
- Steve Rudd, Space Applications Corporation, who handled general support and publications
- Ms. Bev Sampson, DCA, and Major Sam Robinson, USAF, who made protocol arrangements
- Steve Carrier, PRC, who helped arrange facilities and food service

Let me also thank the many other people who contributed to the success of this Symposium. We hope it has been useful to industry, as well as to the DCA.

Harold J.M. (Mac) Williams
Co-chairman
Vice President, PRC
DCA Forecast to Industry
— Agenda —

Thursday, March 31

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>0730</td>
<td>Registration and Continental Breakfast</td>
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</tbody>
</table>
| 0800-0820 | Opening Remarks  
Harold J.M. Williams, Co-chairman  
Division Vice President, C3 Systems Planning Research Corporation  
AFCEA Welcome  
Gen John Wiltcham, Jr., USA (Ret.)  
President, AFCEA International |
| 0820-0835 | DCA/NCS Welcome  
Lt Gen John T. Myers, USA  
Director, DCA; Manager NCS |
| 0835-0945 | DCA/NCS Organizational Overview  
Ms. Susan Jimenez  
Activity Competition Advocate |
| 0845-0915 | Resources & Planning Overview  
Mr. John Beach  
Director, Resource Management Directorate, DCA |
| 0915-0935 | R&D Technology  
Dr. Gordon K. Soper  
Associate Director for Engineering and Technology |
| 0935-1000 | BREAK |
| 1000-1020 | Contract Overview  
Mr. Raymond Martone  
Agency Competition Advocate, DCA |
| 1020-1050 | Defense Communications System Organization Overview  
Brig Gen Phillip E. Bracher, USAF  
Director, DCSO, DCA |
| 1050-1120 | Joint Data Systems Support Center Overview  
Mr. Glenn Stevener  
Director, JDSSC, DCA |
| 1120-1150 | National Communications System Overview  
Mr. Ben Morriss  
Deputy Manager, NCS |
| 1200-1300 | LUNCH- Honorable Robert Costello, Keynote Speaker |
| 1330-1400 | Joint Tactical Command, Control and Communications Agency  
BG George A. Bombel  
Director, JTC3A, DCA |
| 1400-1440 | Center for Command, Control and Communications System Overview  
Dr. David T. Signori, Jr.  
Director, C4S, DCA |
| 1440-1525 | Defense Commercial Communications Office Overview  
COL Bill Penny, USAF  
Commander, DECCO, DCA |
| 1525-1540 | BREAK |
| 1540-1600 | Small Business Brief  
Mr. Glen Moore  
Deputy Director, Small & Disadvantaged Business Utilization Program, DCA |
| 1600-1630 | Closing Remarks |
| 1645-1900 | NO HOST SOCIAL |

Friday, April 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800-0810</td>
<td>Administrative Remarks</td>
</tr>
</tbody>
</table>
| 0810-0830 | DCSO Program Overview  
o Defense Data Network (DDN)  
>]Defense Switched Network (DSN)  
| 0830-0845 | Questions and Answers |
| 0845-0910 | JDSSC Program Overview  
> Analytical Support to OSD  
4 ADP Support to DCS  
| 0910-0930 | Questions and Answers |
| 0930-0945 | BREAK |
| 0945-1000 | NCS Program Overview  
> National Emergency Telecommunications Service (NETS) |
| 1000-1020 | Questions and Answers |
| 1020-1050 | C4S Program Overview  
> Command Center Improvement Program  
> Meteor Burst Communications |
| 1050-1100 | Questions and Answers |
| 1100-1120 | BREAK |
| 1120-1150 | Small Business Brief  
Mr. Glen Moore  
Deputy Director, Small & Disadvantaged Business Utilization Program, DCA |
| 1150-1200 | NO HOST SOCIAL |
Special Notice

The announcement below, which was made several times during the course of the program, also applies to the key vugraphs used in the DCA Forecast to Industry, held at the Crystal Gateway Marriott, 31 March and 1 April 1988.

These briefings are for informational purposes only and do not represent any commitment on the part of the Defense Communications Agency to procure any further system or to enter into any contracts in an area which may be covered by the briefings or alluded to by any participant at the briefings. Additionally, programs being briefed may not be available for foreign participation.

Please note the funding data presented in these briefings are the total program/project estimated cost and are not representative of the funding which may be obligated for any given contract.

31 March 1988
WHAT WE HAVE IN STORE FOR YOU

- RESOURCE AND PLANNING OVERVIEW
- R&D TECHNOLOGY
- COMPETITION ADVOCATE, SMALL BUSINESS CONTRACT OVERVIEW
- DEPUTY DIRECTORS OVERVIEW OF THEIR DIRECTORATES/PROGRAMS - DECCO OVERVIEWS
- SPECIFIC PROGRAM BRIEFINGS FROM EACH DIRECTORATE
- KEY NOTE LUNCHEON ADDRESS EACH DAY
  - UNDER SECRETARY FOR ACQUISITION - HONORABLE DR. COSTELLO
  - DIRECTOR, DCA/MANAGER NCS - LIEUTENANT GENERAL, JOHN T. MYERS, USA
NATIONWIDE EMERGENCY TELECOMMUNICATIONS SERVICE

FUNCTIONAL DESCRIPTION OF NETS

- Supports Executive Agencies during National Emergencies
- Exploits surviving assets of PSN
- Circumvents limited routing of PSN
- Distributed call controlling mechanisms
- Multiple carriers, local operating companies
- Will support voice and 2.4KB/S data

LEGEND
CC - NETS CALL CONTROLLER
- SWITCH

CONTRACT DATA

CONTRACTING AGENCY: DECCO
POINT OF CONTACT: DON MILLER
LOCATION: SCOTT AFB

PRIME CONTRACT PERIOD:
DEC 90 - DEC 95
PLUS OPTION YEARS

MILESTONES

- Release of RFP AUG 89
- Contract award DEC 90
- IOC DEC 93
- FOC FY 96

#6127-CV
## TELECOMMUNICATIONS ARCHITECTURE
### MAJOR CONTRACTUAL EFFORTS
#### CURRENT

<table>
<thead>
<tr>
<th>CONTRACT NO.</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCA 100-87-C-0063</td>
<td>SYSTEMS ENGINEERING &amp; TECHNICAL ANALYSIS</td>
<td>BOOZ-ALLEN &amp; HAMILTON</td>
<td>&gt;10M</td>
<td>MAY 87 - MAY 90</td>
</tr>
<tr>
<td>DCA 100-87-C-0101</td>
<td>SHARES</td>
<td>C-CUBED</td>
<td>&lt;1M</td>
<td>JUN 87 - JUN 88</td>
</tr>
<tr>
<td>DCA 100-86-C-0015</td>
<td>NETS, TASK IV</td>
<td>AT&amp;T</td>
<td>&gt;10M</td>
<td>JAN 86 - APR 88</td>
</tr>
<tr>
<td>DCA 100-87-C-0139</td>
<td>NETS APPLICATION TO NTI D&amp;S FAMILY</td>
<td>NTI</td>
<td>&lt;10M</td>
<td>SEP 87 - MAR 90</td>
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<tr>
<td>DCA 100-87-C-0142</td>
<td>US SPRINT SUPPORT TO NETS</td>
<td>US SPRINT</td>
<td>&lt;3M</td>
<td>SEP 87 - MAR 90</td>
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<tr>
<td></td>
<td>MCI SUPPORT TO NETS</td>
<td>MCI</td>
<td>&lt;3M</td>
<td>FEB 88 - AUG 90</td>
</tr>
<tr>
<td></td>
<td>NETS MAINTENANCE AND CONFIGURATION MGMT</td>
<td>NETWORK SOLUTIONS</td>
<td>&lt;5M</td>
<td>JAN 88 - JAN 91</td>
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<tr>
<td>DCA 100-87-C-0042</td>
<td>CSI PILOT PROGRAM</td>
<td>CONTEL</td>
<td>&lt;5M</td>
<td>AUG 87 - SEP 94</td>
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<tr>
<td>DCA 100-87-C-0043</td>
<td>CSI ITT&amp;C (RCA)</td>
<td>CONTEL</td>
<td>&lt;10M</td>
<td>AUG 87 - SEP 94</td>
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#057-CV
RESOURCE MANAGEMENT DIRECTORATE
DEFENSE COMMUNICATIONS AGENCY TOTAL FUNDING
($ IN MILLIONS)

<table>
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<tr>
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<tr>
<td>DIRECT APPROPRIATIONS</td>
<td>$410</td>
<td>$409</td>
<td>$466/1</td>
<td>$478</td>
<td>$488</td>
<td>$531</td>
</tr>
<tr>
<td>EXTERNAL FUNDING OF WORK</td>
<td>174</td>
<td>320</td>
<td>338</td>
<td>228</td>
<td>330</td>
<td>330</td>
</tr>
<tr>
<td>INDUSTRIAL FUND (COMM)</td>
<td>889</td>
<td>908</td>
<td>1,110</td>
<td>1,225</td>
<td>1,224</td>
<td>1,320</td>
</tr>
<tr>
<td>DECCO OVERHEAD (INCLUDED ABOVE)</td>
<td>(7)</td>
<td>(11)</td>
<td>(11)</td>
<td>(13)</td>
<td>(17)</td>
<td>(17)</td>
</tr>
<tr>
<td>TOTAL FUNDING</td>
<td>$1,473</td>
<td>$1,637</td>
<td>$1,914</td>
<td>$1,931</td>
<td>$2,042</td>
<td>$2,181</td>
</tr>
</tbody>
</table>

/1 THE BUDGET FOR THE NEWLY-FORMED JTC³A WAS FIRST REFLECTED IN FY 1986 APPROPRIATIONS ACT.
DoD/DCA BUDGET AUTHORITY
(FY 1988 CONSTANT DOLLARS)
**DEFENSE COMMUNICATIONS AGENCY**
**BUDGET SUMMARY BY CATEGORY**
**(AS OF FEB 1988)**
**(\$ IN MILLIONS)**

<table>
<thead>
<tr>
<th></th>
<th>FY 1987</th>
<th>FY 1988</th>
<th>FY 1989</th>
</tr>
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<tbody>
<tr>
<td>CIVILIAN PAY</td>
<td>87.8</td>
<td>92.6</td>
<td>93.4</td>
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<tr>
<td>OPERATING EXPENSES</td>
<td>88.0</td>
<td>106.8</td>
<td>100.8</td>
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<tr>
<td>CONTRACTS</td>
<td>301.8</td>
<td>288.9</td>
<td>336.9</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>477.6</td>
<td>488.3</td>
<td>531.1</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CIVILIAN PAY</td>
<td>+ 4.8</td>
<td>+ .8</td>
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<tr>
<td>OPERATING EXPENSES</td>
<td>+ 18.8</td>
<td>- 6.0</td>
</tr>
<tr>
<td>CONTRACTS</td>
<td>- 12.9</td>
<td>+ 48.0</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>+ 10.7</td>
<td>+ 42.8</td>
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#094-CV
DCA EMPLOYMENT MIX
FY 1987

35.7% CIVILIAN
32% MILITARY
29% OTHER CONTRACT
FFRDC 3.4%
## EMPLOYMENT MIX OF DCA

<table>
<thead>
<tr>
<th></th>
<th>FY87</th>
<th>FY88</th>
<th>FY89</th>
</tr>
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<tbody>
<tr>
<td><strong>MILITARY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authorized</td>
<td>2,080</td>
<td>2,135</td>
<td>2,141</td>
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<tr>
<td>Budget ($K)</td>
<td>$96,701</td>
<td>$98,302</td>
<td>$98,272</td>
</tr>
<tr>
<td>Per Capita</td>
<td>$46,491</td>
<td>$46,043</td>
<td>$45,900</td>
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<tr>
<td><strong>CIVILIAN</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Workyears</td>
<td>2,316</td>
<td>2,348</td>
<td>2,349</td>
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<tr>
<td>Budget ($K)</td>
<td>$96,492</td>
<td>$101,714</td>
<td>$102,849</td>
</tr>
<tr>
<td>Per Capita</td>
<td>$41,663</td>
<td>$43,319</td>
<td>$43,784</td>
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<tr>
<td><strong>FCRC</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>TSY</td>
<td>218.9</td>
<td>219.8</td>
<td>199.5</td>
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<tr>
<td>Budget ($K)</td>
<td>$31,417</td>
<td>$34,115</td>
<td>$31,794</td>
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<tr>
<td>Per Capita</td>
<td>$143,520</td>
<td>$155,209</td>
<td>$159,368</td>
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<tr>
<td><strong>OTHER CONTRACT</strong></td>
<td></td>
<td></td>
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<tr>
<td>TSY</td>
<td>1881</td>
<td>1755</td>
<td>1991</td>
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<tr>
<td>Budget ($K)</td>
<td>$212,791</td>
<td>$205,696</td>
<td>$239,647</td>
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<tr>
<td>Per Capita</td>
<td>$113,127</td>
<td>$117,206</td>
<td>$120,365</td>
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</tbody>
</table>
WHERE DoD DOLLARS ARE SPENT
TOP 100 DEFENSE CONTRACTORS
FY 1987

DCA
53%

DoD TOP 100
47%

DoD

DoD TOP 100
80%

20%
DCA CONTRACT ADMINISTRATION
FY87

DCA HEADQUARTERS  $250 MILLION
DECCO             $1.2 BILLION
RESOURCES MANAGEMENT DIRECTORATE
ACQUISITION INITIATIVES

- RESOURCE DIRECTORATE REORGANIZATION
  - ESTABLISHMENT OF ACQUISITION ASSOCIATE DEPUTY DIRECTOR
  - EMPHASIS ON "ACQUISITION" VS "PROCUREMENT"
  - SINGLE DCA FOCAL POINT FOR ACQUISITION POLICY

- DCA ACQUISITION POLICY REVIEW
  - PURPOSE: STREAMLINE ACQUISITION PROCESS - CUT DOWN ON PROCUREMENT LEADTIME
  - REMOVE OVERLY RESTRICTIVE DCA REGULATIONS
  - INCREASE FLEXIBILITY WITHOUT SACRIFICING CONTROL
  - STUDY OF THE ACQUISITION REVIEW PROCESS
  - PUBLISH "HOW TO" GUIDES AND PROCEDURES TO STANDARDIZE PROCESS

- CONTRACTING OFFICER REPRESENTATIVES (COR)
  - RECOGNITION OF COR AS ACQUISITION FORCE MULTIPLIER
  - COR CONFERENCE (16 DECEMBER)
  - EMPHASIS ON TRAINING
  - CUSTOMER ASSISTANCE PROGRAM IN DIRECTORATES TO ASSIST IN PROCESSING ACQUISITION PACKAGES

- MODEL INSTALLATION PROGRAM WITH DLA
ROLE OF TECHNOLOGY IN DCA

- Established new position of Associate Director for Engineering and Technology
- Conduct oversight of DCA’s Engineering and Technology programs
- Provide integrating/horizontal view across directorate boundaries
- Influence direction of future C3 Technology
- Assess state-of-the-art in C3 related 21st century technology
- Transition emerging technology into operational use
ISSUES

- APPROPRIATE USE OF LIMITED RESOURCES

- BALANCE BETWEEN NEAR-TERM OPERATIONAL OBJECTIVES AND LONG-TERM GOALS OF OUR R&D PROGRAM

- PRESSING OPERATIONAL PROBLEMS

- EFFECTIVE USE OF R&D SPONSORED BY OTHERS IN OUR COMMUNITY
BUCHSBAUM REPORT

DEFENSE SCIENCE BOARD TASK FORCE ON C2 MANAGEMENT (1987)

RECOMMENDATIONS:

- STRENGTHEN CAPABILITIES FOR C3 TESTING/EXERCISES
- PROVIDE FOR CINCS TO UPGRADE AND EVOLVE THEIR C3 CAPABILITIES
- IMPROVE ACQUISITION POLICIES FOR C3 SYSTEMS
- STRENGTHEN C3 EDUCATION AND TRAINING
- DESIGNATE AN AGENT TO ESTABLISH AN OVERARCHING C3 ARCHITECTURE. WE ARE DETERMINED THAT DCA SHOULD BE THE DESIGNATED AGENT.
INITIATIVES

- INVEST SOME R&D RESOURCES TO PROVIDE INCENTIVES TO OTHERS IN DOD TO TRANSITION THEIR TECHNOLOGY INTO DCA'S MISSION AREA
  - CEMENT JOINT EFFORTS WITH SERVICE LABORATORIES AND DEFENSE AGENCIES
  - PROMOTE TECHNOLOGY THRUSTS SUCH AS RAPID PROTOTYPING AND TEST-BEDDING
  - ENCOURAGE EFFECTIVE USE OF NON-DEVELOPMENTAL ITEMS

- JOINT DIRECTORS OF LABORATORIES' TECHNOLOGY PANEL FOR C3
  - PROMOTE COOPERATION IN R&D AMONG SERVICE C3 LABS
  - STRENGTHEN INTELLECTUAL BASE FOR C2 - BUCHSBAUM
  - DEVELOP DISTRIBUTED C3 TEST BED - "SIMNET"
  - DCA MEMBER OF ADVISORY GROUP

- DCA C3 TECHNOLOGY ASSESSMENT PROGRAM
  - GREW FROM ASD (C3I) TASKING
  - PLAN FOLLOW-ON NOV 88 CONFERENCE
SUMMARY

• WORK IN PARTNERSHIP WITH INDUSTRY
  - CONTINUE INVITING INDUSTRY TO JOIN US IN C3 TECHNOLOGY ASSESSMENT WORKSHOPS AND MEETINGS
  - PROPOSE AND REVIEW IR&D PROGRAMS RELEVANT TO THE C3 MISSION OF DCA
  - PROVIDE A CONDUIT FOR TRANSITIONING INDUSTRY NON-DEVELOPMENTAL ITEM SOLUTIONS TO OUR C3 PROBLEMS
  - PROVIDE TEST BEDDING FACILITIES FOR INDUSTRY-PROPOSED SOLUTIONS TO C3 PROBLEMS IN A SIMULATED BUT REALISTIC ENVIRONMENT

• LEVERAGE OUR LIMITED R&D RESOURCES BY AN "OUTREACH PROGRAM" USING CREATIVE MECHANISMS BRINGING YOUR MODERN TECHNOLOGY TO BEAR ON OUR TOUGH C3 PROBLEMS
BACKGROUND

- COMPETITION IN CONTRACTING ACT (CICA) ENACTED BY CONGRESS JULY 1984
- EFFECTIVE DATE OF CICA 1 APRIL 1985
- CREATED NEW EMPHASIS ON COMPETITION
- CREATED TWO NEW POSITIONS BY LAW
  - SENIOR PROCUREMENT EXECUTIVE (SPE)
  - COMPETITION ADVOCATE (CA)
- "OTHER THAN FULL AND OPEN COMPETITION" WILL BE JUSTIFIED IN WRITING AND APPROVED
- AUTHORITIES THAT PERMIT "OTHER THAN FULL AND OPEN COMPETITION"
COMPETITION IN CONTRACTING ACT (CICA)

COMPETITION ADVOCATE - DUTIES & RESPONSIBILITIES

1. PROMOTE FULL AND OPEN COMPETITION

2. REVIEW CONTRACT OPERATIONS AND REPORT TO SPE
   - OPPORTUNITIES FOR COMPETITION
   - UNNECESSARY RESTRICTION ON COMPETITION

3. SUBMIT ANNUAL REPORT TO SPE DESCRIBING
   - ADVOCATES ACTIVITIES, ANY BARRIERS
   - NEW INITIATIVES, ANY BARRIERS
   - ACQUISITION TRAINING AND RESEARCH

4. RECOMMEND AGENCY PLANS AND GOALS TO SPE

5. RECOMMEND SYSTEM OF RECOGNITION AND AWARDS

6. CHALLENGE BARRIERS TO COMPETITION INCLUDING UNNECESSARY
   DETAILED SPECIFICATIONS AND RESTRICTED STATEMENTS OF NEED
DCA ACQUISITION STRUCTURE

DIRECTOR DCA/NCS
Senior Procurement Executive (SPE)
Head of Contracting Activity (HCA)

AGENCY
COMPETITION
ADVOCATE &
DIRECTOR
SMALL BUSINESS
(DECCO Oversight)

DIRECTOR
RESOURCE
MANAGEMENT

DCSO, C4S
JDSSC, NCS,
JTC3A

DECCO
Head of Contracting Activity

ASSOCIATE
DEP DIRECTOR
FOR ACQUISITION

ASSOCIATE
DIR. SMALL BUSINESS

ACTIVITY
COMPETITION
ADVOCATE

ACQUISITION
POLICY DIVISION

CONTRACT
MANAGEMENT
DIVISION

Chief. Contract
Management, Div.

072-4-FEB 88-RC
DCA COMPETITION ADVOCATES

AGENCY COMPETITION ADVOCATE

RAY MARTONE
(202) 692-5358

ACTIVITY COMPETITION ADVOCATE - HQS

SUSAN JIMENEZ
(202) 692-5358

ACTIVITY COMPETITION ADVOCATE - DECCO

BILL HECHT
(618) 256-3346
OBJECTIVE OF CICA

OBTAIN THE BEST QUALITY PRODUCTS FOR THE GOVERNMENT. AT THE BEST PRICE.

BEST VALUE
AREA OF MAJOR FOCUS

- LONG RANGE ACQUISITION PLANNING AND STRATEGIES
- DAY TO DAY REVIEW AND APPROVAL
- OMBUDSMAN
OMBUDSMAN

- MEET WITH INDUSTRY REPRESENTATIVES
  - INTRODUCE COMPANIES TO ORGANIZATIONS

- RESEARCH INDUSTRY COMPLAINTS (PRE PROTEST)
  - FORMAL AND INFORMAL

- ACTIVELY REVIEW THE ACQUISITION PROCESS TO
  - ENSURE FAIRNESS WHICH PROMOTES GOOD COMPETITION
  - PROMOTE GOOD RELATIONS WITH OUR INDUSTRIAL PARTNERS
CONTACTS

- ONCE COMMERCE DAILY BULLETIN (CDB) ISSUED, ALL DISCUSSION THRU CONTRACTING OFFICER

- INFORMAL PROTEST, COMPLAINTS, ETC WHICH INHIBIT OR EFFECT COMPETITION
  - 1ST DIRECTED TO CONTRACTING OFFICER (CO) FOR RESOLUTION
  - IF NOT RESOLVED, OR AUTONOMY REQUIRED, CONTACT ACTIVITY OR AGENCY COMPETITION ADVOCATE
# HQ DCA - Points of Contact

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defense Communications System Organization (DCSO)</td>
<td>Al Holloway</td>
<td>746-0722</td>
</tr>
<tr>
<td>Joint Data Systems Support Center (JDSSC)</td>
<td>Chuck Green</td>
<td>692-0303</td>
</tr>
<tr>
<td>Center for Command, Control &amp; Communications Systems (C4S)</td>
<td>Les Straub</td>
<td>692-5527</td>
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<tr>
<td>National Communications System (NCS)</td>
<td>Maj. Nicholas Andre</td>
<td>692-6929</td>
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ACQUISITION INFORMATION
FOR INDUSTRY

- 1ST FORECAST TO INDUSTRY
  - ELECTRONIC BULLETIN BOARD

- HQ DCA
  WESTERN UNION SERVICE EASY LINK
  - ACCESS TO CBD'S
    - SEARCH, KEYWORD, ORGAN, SOL # ETC
    - DATA RETAINED
  - ACQUISITION INFORMATION FILES
    - LIST OF CURRENT CONTRACTS (OVER 100 CONTRACTS)
    - LIST OF KEY PERSONNEL CONTACT IN ACQ PROCESS
    - GENERAL ACQ INFO - POLICY CHANGES, BIDDERS CONFERENCES, ETC
    - ACQUISITION FORECAST - ADVANCED PROC INFO 90-120 DAYS

- DECCO
  ELECTRONIC BULLETIN BOARD
  - CBD ANNOUNCEMENTS
  - FUTURE ACQ PLANS
  - LIST OF DECCO CONTRACTORS
  - LIST OF DECCO PROCUREMENT KEY PERSONNEL WORLD WIDE
  - ACQ POLICY & PROCEDURAL CHANGES
  - LIMITED INFO ON GOVERNMENT STANDARD
DEFENSE COMMUNICATIONS AGENCY
ACQUISITION BULLETIN BOARD

THE OFFICE OF THE COMPETITION ADVOCATE AND
DIRECTOR OF SMALL AND DISADVANTAGED BUSINESS
UTILIZATION (H130) HAS ESTABLISHED AN ELECTRONIC
BULLETIN BOARD THROUGH THE WESTERN UNION
INFORMATION RETRIEVAL SERVICE. ANY TELEX OR
EASYLINK SUBSCRIBER MAY ACCESS THE BULLETIN
BOARD. CONTACT MR. TOM MACLEOD, WESTERN UNION SYSTEM
SERVICES AT (202) 778-0300, FOR INFORMATION ABOUT THESE
SERVICES.
DEFENSE COMMUNICATIONS AGENCY
ACQUISITION BULLETIN BOARD

TELEX AND EASYLINK SUBSCRIBERS MAY ACCESS THE
SYSTEM UNDER THE "FYI" CATEGORY, BY TYPING "DCABB".
DCABB CONTAINS THE FOLLOWING SUBCATEGORIES:

CNTRA-- A LISTING OF ALL ACTIVE, UNCLASSIFIED
CONTRACTS, UPDATED MONTHLY

KEYPERS: A LISTING OF KEY DCA/NCS ACQUISITION
PERSONNEL

FORECAS: DCA/NCS ACQUISITION FORECAST FOR THE
CURRENT FISCAL YEAR

HARD COPIES OF THE ABOVEMENTIONED INFORMATION MAY
BE OBTAINED BY WRITING TO THE FOLLOWING ADDRESS:

DCA
ATTN: H130
WASHINGTON, DC 20305-2000
ACQUISITION INFORMATION

INFORMATION FILE ONE - COMMERCE BUSINESS DAILY SYNOPSISES
IDENTICAL INFORMATION TO CBD
OPENING AND CLOSING DATES

INFORMATION FILE TWO - ACQUISITION FORECAST
ADVANCE PROCUREMENT INFORMATION (90-120 DAYS LEAD TIME)
PR# TITLE EST CBD DATE
ID# ORGANIZATION SYNOPSIS OF EFFORT MY
RESTRICTIONS (SB, 8a, F/O)
PREVIOUS CONTRACT #

INFORMATION FILE THREE - GENERAL ACQUISITION INFORMATION
GENERAL ANNOUNCEMENTS, e.g. BIDDERS CONFERENCE, CHANGES
IN KEY PERSONNEL, POLICY CHANGES
DATE AND NARRATIVE

INFORMATION FILE FOUR - LIST OF DCA CURRENT CONTRACTS
CONTRACTOR, OPR. CONTRACT #, TOTAL VALUE, AWARD DATE,
EXPIRATION DATE, # OF OPTION YEARS, EXP COMP DATE, SHORT
NARRATIVE

INFORMATION FILE FIVE - DCA KEY CONTACTS
ORGANIZATION ELEMENT, NAME, TELEPHONE #, ROLE/MISSION AREA

072-13-FEB 88-RC
# DCA/NCS SMALL BUSINESS

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Phone</th>
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<tbody>
<tr>
<td>DIRECTOR, SMALL BUSINESS</td>
<td>RAYMOND MARTONE</td>
<td>692-5358</td>
</tr>
<tr>
<td>DEPUTY DIRECTOR, SMALL BUSINESS &amp; ASSOCIATE</td>
<td>GLEN MOORE</td>
<td>692-5358</td>
</tr>
<tr>
<td>ASSOCIATE DIRECTOR, SMALL BUSINESS, DECCO</td>
<td>CAPT JOE BROOKS</td>
<td>(618) 256-2349</td>
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</table>
DCSO Organization Chart

DIRECTOR

EXECUTIVE OFFICER

CHIEF OF STAFF

RESOURCES PLANS & POLICY OFFICE

NCS/DCAO

DCS INTEGRATION

DCEC

DCS TRANSMISSION SYSTEMS

DCS TELECOMM. NETWORKS

DCS DATA SYSTEMS

DCA-PAC

DCA-EUR

ADP & TECH. SUP.
DCS MISSION

TO PROVIDE THE LONG-HAUL, POINT-TO-POINT, AND SWITCHED NETWORK TELECOMMUNICATIONS NEEDED TO SATISFY THE REQUIREMENTS OF DOD AND CERTAIN OTHER GOVERNMENTAL AGENCIES
DCS Users

- Joint Chiefs of Staff (JCS)
- Other Govt. Users
- Civil Users
- Allies
- CINC's, Unified & Specified Commands
- National Military Command System (NMCS)
- National Command Authorities (NCA)
- Military Departments
What Is The DCS?

ONE-HALF MILLION USERS

$12B CAPITAL INVESTMENT

OLD

IN A MAJOR TRANSITION

NEW
DCS: A COMMUNICATIONS PIPELINE

- 566 DCS SITES
- 240 VOICE SWITCHES
- 316 DATA SWITCHES
- 61,000 CIRCUITS

VOICE MESSAGE
DATA
VIDEO
DCA's Role For The DCS

- Planning and Programming
- Managing
- Engineering
- Operational Direction
RELATIONSHIPS

DCA

SYSTEM ENGINEERING
OVERALL MANAGEMENT
OPERATIONAL DIRECTION

SERVICES

IMPLEMENTATION
SITE OPERATION
AND MAINTENANCE
Problems With The Current DCS

- Age of Equipment
- Security
- Survivability
- Capacity/Increased Demand
- Network Management and Control
New Technologies

- DIGITIZATION
- LARGE SCALE INTEGRATION
- SATELLITES
- COMPUTER-BASED EQUIPMENT
- FIBER OPTICS
- DISTRIBUTED NETWORKS
Planned Changes To Current System

- Defense Switched Network (DSN)
- Defense Data Network (DDN)
- Secure Voice System (SVS)
- Defense Satellite Communications System (DSCS)
- Terrestrial Transmission
- System Control
DCS TRANSITION

DCS IN CRITICAL AND RAPID TRANSITION PHASE AS MAJOR NEW PROGRAMS REPLACE AGED DCS NETWORKS

OLD DCS

- AUTOVON
- AUTODIN
- DSCS II
- ANALOG TRANSMISSION
- MANUAL SYSTEM CONTROL

NEW DCS

- DSN
- DDN
- DSCS III
- DIGITAL TRANSMISSION
- DIGITAL SYSTEM CONTROL

CONTRACTUAL SUPPORT

- RDT&E - ENGINEERING
- O&M - PROGRAM MANAGEMENT
DCSO FY88 CONTRACTUAL EFFORTS
(O&M AND RDT&E)

DSN $5,834K
DDN $7,506K
DSCS & TERRS TRANS $6,387K
OTHER $1,582K
ENGINEERING $2,954K
INTEGRATION $3,505K
TOTAL = $27,768K
DCSO OPERATING ENVIRONMENT

FUNDING

CUTS

PERSONNEL

$ $ $
SUMMARY

CONTRACTOR SUPPORT IS CRITICAL TO THE DCS AS IT TRANSITIONS FROM AN OLD ANALOG, MANUAL SYSTEM TO A NEW DIGITAL, AUTOMATED SYSTEM.
DCA MISSION

- Plan, manage and system engineer the DCS
- Provide ADP and technical support to OJCS and OSD
- Provide systems engineering support for the National Military Command System and the Strategic Forces
- Provide engineering and technical support to the WWMCCS
- Provide systems architecture for current and future MILSATCOM
- Procure leased communications for DoD and other government agencies
- Ensure interoperability of tactical command, control, and communication systems for joint and combined operations
JDSSC MISSION

• PROVIDE CENTRALIZED TECHNICAL SUPPORT OF OPERATING SYSTEMS AND APPLICATIONS SYSTEMS FOR WWMCCS ADP, WIN AND OTHER ADP SYSTEMS TO OJCS, UNIFIED AND SPECIFIED COMMANDS AND OSD

• PROVIDE ANALYTICAL AND ADP OPERATIONAL SUPPORT TO OJCS, UNIFIED AND SPECIFIED COMMANDS AND OSD

• PROVIDE ADP SUPPORT AS SPECIFICALLY DIRECTED BY THE DIRECTOR, JOINT STAFF, TO THE WJS-JOINT PROGRAM MANAGER AND OTHER USERS
JDSSC ORGANIZATION

DIRECTOR
JOINT DATA SYSTEMS SUPPORT CENTER

TECH & MGT SUPPORT OFFICE

NMCS ADP DIRECTORATE
- FORCE STUDIES
- LOGISTICS STUDIES
- APPLICATIONS SOFTWARE
- NMCS SUPPORT
- NMCS OPS TEAM SUPPORT

WWMCCS ADP TECH SPT DIRECTORATE
- WWMCCS STD OP SYS
- WWMCCS INTERCOMP NET
- LOCAL AREA NETWORK
- WIS CONFIGURATION MGT
- OPERATIONAL SPT FACILITY

COMPUTER SVCS DIRECTORATE
- COMPUTER SUPPORT
- OPERATION SYS SUPPORT
- PERFORMANCE EVAL
- LOCAL CONFIGURATION MGT
- AUDIO VISUAL SUPPORT

HEADQUARTERS BUILDING
RESTON
PENTAGON
WASHINGTON NAVY YARD
ANMCC
DCA/JDSSC RESOURCE SUMMARY
(FY88)

PEOPLE

JDSSC 874 (19.5%)
DCA 4483

DOLLAR$:

JDSSC $93.4 (18.9%)
DCA $494M

874 = 456 CIVILIANS, 258 ENLISTED, 160 OFFICERS
CONTRACTS = 42.4M, PROCUREMENT = 8M, CIVILIAN PAY = 19.3M
OPERATING = 24M

#058-CV
# RESOURCE SUMMARY

## IN-HOUSE MANPOWER (FY88)

<table>
<thead>
<tr>
<th></th>
<th>DIRECTOR</th>
<th>NMCS ADP</th>
<th>WWMCCS ADP</th>
<th>COMPUTER SERVICES</th>
<th>TOTAL</th>
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<tr>
<td>OFFICERS</td>
<td>7</td>
<td>112</td>
<td>23</td>
<td>18</td>
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<td>ENLISTED</td>
<td>3</td>
<td>34</td>
<td>4</td>
<td>217</td>
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<td>TOTAL MILITARY</td>
<td>10</td>
<td>146</td>
<td>27</td>
<td>235</td>
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<td>CIVILIAN</td>
<td>36</td>
<td>249</td>
<td>77</td>
<td>94</td>
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<td>46</td>
<td>395</td>
<td>104</td>
<td>329</td>
<td>874</td>
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058-9-FEB 88-RC
RESOURCE ALLOCATION

- Systems software: 19%
- Applications software: 28%
- Military force studies: 8%
- Computer operations: 36%
- Other: 9%
IN-HOUSE MANPOWER ALLOCATION

- Computer Services: 38%
- Applications Software: 45%
- Systems Software: 12%
- Other: 5%
CONTRACT RESOURCE ALLOCATION

- APPLICATIONS SOFTWARE: 49%
- SYSTEMS SOFTWARE: 39%
- COMPUTER SERVICES: 11%
- OTHER: 1%
# CONTRACTORS

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<th>Category</th>
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<tr>
<td>UNISYS</td>
<td>GENERAL SUPPORT</td>
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<tr>
<td>COMPUTER SCIENCES CORPORATION</td>
<td>GENERAL SUPPORT</td>
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<td>HONEYWELL</td>
<td>GENERAL SUPPORT</td>
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<tr>
<td>POTOMAC SYSTEMS ENGINEERING</td>
<td>OFFICE AUTOMATION</td>
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<tr>
<td>SYSTEMS RESEARCH &amp; APPLICATIONS CORPORATION</td>
<td>EXERCISE SUPPORT</td>
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<tr>
<td>MITRE</td>
<td>WIS TRANSITION SUPPORT</td>
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<tr>
<td>SYSTEMS APPLICATIONS INTERNATIONAL CORPORATION</td>
<td>STRATEGIC STUDIES</td>
</tr>
<tr>
<td>SYNERGY</td>
<td>LOGISTICS SYSTEM DEVELOPMENT</td>
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<tr>
<td>NAVAL POSTGRADUATE SCHOOL</td>
<td>LONG RANGE FORECASTING</td>
</tr>
<tr>
<td>NAVAL REGIONAL DATA AUTOMATION CENTER</td>
<td>RISOP/SIOP SUPPORT</td>
</tr>
<tr>
<td>7 COMM GROUP (USAF)</td>
<td>MULTICS</td>
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<tr>
<td>BUREAU OF CENSUS</td>
<td>POPULATION/INDUSTRIAL NATIONS</td>
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<tr>
<td>DEPARTMENT OF STATE</td>
<td>ASSESSMENT DATA</td>
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<td>DEPARTMENT OF TRANSPORTATION</td>
<td>ASSESSMENT DATA</td>
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<tr>
<td>DEFENSE NUCLEAR AGENCY</td>
<td>VERIFICATION &amp; VALIDATION</td>
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<td>ETC.</td>
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-
SUPPORTED ORGANIZATIONS

- SHAPE
- CINCS/SERVICES
- WWMCCS COMMUNITY
- OTHER FEDERAL AGENCIES
- OSD
- OJCS
- NCS
- WIS/JPM
WWMCCS DEFINITION

THE WWMCCS IS THE WORLDWIDE COMMAND AND CONTROL SYSTEM THAT PROVIDES THE MEANS FOR OPERATIONAL DIRECTION AND TECHNICAL ADMINISTRATION SUPPORT INVOLVED IN THE FUNCTION OF COMMAND AND CONTROL OF U.S. MILITARY FORCES

DoD 5100.30
WWMCCS ELEMENTS

- WARNING SYSTEMS
- COMMUNICATIONS
- COMMAND FACILITIES
- EXECUTIVE AIDS
- DATA COLLECTION & PROCESSING
WWMCCS PRIMARY MISSION

SUPPORT OF NATIONAL COMMAND AUTHORITIES FOR:

- RECEIPT OF WARNING AND INTELLIGENCE UPON WHICH ACCURATE AND TIMELY DECISIONS CAN BE MADE

- APPLICATION OF RESOURCES OF THE MILITARY DEPARTMENTS

- ASSIGNMENT OF MISSIONS AND PROVISION OF DIRECTION TO THE UNIFIED AND SPECIFIED COMMANDS
WWMCCS SECONDARY MISSION

- SUPPORT COMMAND AND CONTROL SYSTEMS
  OF THE UNIFIED AND SPECIFIED COMMANDS

- SUPPORT WWMCCS RELATED MANAGEMENT
  INFORMATION SYSTEMS OF OTHER DoD
  COMPONENTS
PRIORITY COMPONENT OF WWMCCS

NATIONAL MILITARY COMMAND SYSTEM (NMCS)

NMCS

NCA

JCS

CINCS

SERVICES

COMPONENTS

MAJOR SUPPORT ORGANIZATIONS

MAJOR FORCES
NATIONAL MILITARY COMMAND SYSTEM
DEFINITION

THE NMCS IS THE PRIORITY COMPONENT OF THE
WWMCCS DESIGNED TO SUPPORT THE NATIONAL
COMMAND AUTHORITIES AND THE JOINT CHIEFS
OF STAFF. THE NMCS CONSISTS OF THE
FACILITIES, DATA PROCESSING SYSTEMS AND
NETWORKS, DISPLAY SYSTEMS, AND MESSAGE
PREPARATION, VOICE DATA, AND COMMUNICATIONS
SYSTEMS WHICH PROVIDE THE REQUIRED SUPPORT.
WWMCCS ADP DEFINITION

WWMCCS ADP CONSISTS OF STANDARD HARDWARE, SOFTWARE AND PROCEDURES. IT INTERFACES WITH OTHER WWMCCS ELEMENTS, AND PROVIDES THE BULK OF DATA PROCESSING AND TELECOMMUNICATIONS FACILITIES NECESSARY TO SUPPORT THE INFORMATION PROCESSING REQUIREMENTS OF THE NATIONAL COMMAND AUTHORITIES.
WWMCCS ADP OVERALL

- 45 H6000 SITES WORLDWIDE
- 113 H6000 COMPUTERS
- 87 LEVEL 6 COMPUTERS
- 3400 PEOPLE
- $200 MILLION PER YEAR
WWMCCS INFORMATION SYSTEM (WIS) DEFINITION

THE WWMCCS INFORMATION SYSTEM PROGRAM PROVIDES AN IMPROVED COMMAND AND CONTROL CAPABILITY FOR USE IN NATIONAL SECURITY DECISION-MAKING, FORCE PREPARATION AND PLANNING, AND EXECUTION OF OPERATION PLANS, BY MODERNIZING THE WWMCCS ADP SYSTEM PRIMARILY THROUGH THE USE OF COMMERCIAL OFF-THE-SHELF HARDWARE AND SOFTWARE.
JDSSC ORGANIZATION

DIRECTOR
JOINT DATA SYSTEMS
SUPPORT CENTER

TECH & MGT
SUPPORT OFFICE

NMCS ADP
DIRECTORATE

WWMCCS ADP TECH
SPT DIRECTORATE

COMPUTER SVCS
DIRECTORATE
NMCS ADP DIRECTORATE
MAJOR FUNCTIONS

- Develop and maintain ADP command and control systems for the OJCS and WWMCCS community
- Provide technical and ADP support for war gaming, mobility analyses, strategic force analyses, and general purpose force analyses
- Maintain force and resource data files
- Conduct vulnerability analysis and damage assessment studies
- Provide transition support to WIS and improved NMCS capabilities
- Provide crisis/exercise and evaluation support
NMCS ADP DIRECTORATE
SUPPORT AREAS

- CONVENTIONAL WAR
- STRATEGIC AND GENERAL WAR
- STUDIES AND WARGAMING
- LOGISTICS
- DATA AND INFORMATION SYSTEMS
- WWMCCS STANDARD APPLICATIONS
- EXERCISES
LOGISTICS

- NATO REINFORCEMENT PLANNING & EXECUTION
- LOGISTICS READINESS CENTER
- SUSTAINABILITY OF FORCES
DATA & INFORMATION SYSTEMS

- NMCS INFORMATION DISPLAY SYSTEM
- JOINT RESOURCE ASSESSMENT DATA SYSTEM
WWMCS
STANDARD APPLICATIONS
UNITED STATES BASE REQUIREMENTS OVERSEAS
SINGLE INTEGRATED DAMAGE ANALYSIS CAPABILITY
NUCLEAR CONTINGENCY PLANNING SYSTEM
Nuclear Weapons Accounting System
Generalized Data Retrieval System
General Unified Ammunition Reporting Data
Joint Operations Planning System
Air Facilities File Information System
Etc.
JDSSC ORGANIZATION

DIRECTOR
JOINT DATA SYSTEMS
SUPPORT CENTER

TECH & MGT
SUPPORT OFFICE

NMCS ADP
DIRECTORATE

WWMCCS ADP TECH
SPT DIRECTORATE

COMPUTER SVCS
DIRECTORATE
WWMCCS ADP TECHNICAL SUPPORT DIRECTORATE FUNCTIONS

- DEVELOP, INTEGRATE, TEST, AND DISTRIBUTE WWMCCS ADP STANDARD SYSTEM SOFTWARE (INCLUDING UNBUNDLED SOFTWARE)

- IDENTIFY WWMCCS ADP REQUIREMENTS FOR SYSTEM SOFTWARE, EQUIPMENT, TRAINING, LOGISTICS, AND CONTRACTUAL SUPPORT

- PROVIDE FOCAL POINT FOR WWMCCS ADP SYSTEMS SOFTWARE CONFIGURATION MANAGEMENT CONTROL

- MANAGE INTEGRATED SYSTEMS TESTING OF THE WWMCCS INFORMATION SYSTEM

- PROVIDE FOCAL POINT FOR WWMCCS INTERCOMPUTER NETWORK

- PROVIDE ON-SITE ADP TECHNICAL ASSISTANCE
WWMCCS ADP TECHNICAL SUPPORT DIRECTORATE SUPPORT AREAS

- SYSTEM SOFTWARE ACTIVITIES
- WWMCCS INTERCOMPUTER NETWORK
- SITE ASSISTANCE
- CONFIGURATION MANAGEMENT
SYSTEM SOFTWARE ACTIVITIES

RELEASE GENERATION

USER VALIDATION

DEVELOPMENT

CONFIGURATION CONTROL

TESTING

U.S. MAIL

REQUIREMENTS ANALYSIS
WWMCCS INTERCOMPUTER NETWORK (WIN)

CAPABILITIES

• TELECONFERENCING

• REMOTE ACCESS

• FILE TRANSFER
WIN TOPOLOGY
CONFIGURATION MANAGEMENT

- NETWORK ACCESSIBLE
  - SOFTWARE CHANGES
  - HARDWARE/SOFTWARE INCIDENT SUBMISSION & STATUS

- WORLDWIDE HARDWARE & SOFTWARE
  - INVENTORY
  - MAINTENANCE/REPAIR HISTORY

- MANAGEMENT OF SEPARATELY PRICED SOFTWARE

- BASELINE MANAGEMENT AND CHANGE CONTROL FOR WWMCCS STANDARD SYSTEM SOFTWARE
JDSSC ORGANIZATION

DIRECTOR
JOINT DATA SYSTEMS
SUPPORT CENTER

TECH & MGT
SUPPORT OFFICE

NMCS ADP
DIRECTORATE

WWMCCS ADP TECH
SPT DIRECTORATE

COMPUTER SVCS
DIRECTORATE
COMPUTER SERVICES DIRECTORATE FUNCTIONS

• MANAGE THE OPERATION OF ALL JDSSC ADP FACILITIES

• PROVIDE GENERAL TELEVISION AND ELECTRONIC AUDIOVISUAL SUPPORT

• MANAGE WWMCCS INTERCOMPUTER NETWORK OPERATIONS CENTER

• DIRECT THE ADP SECURITY PROGRAM

• INSTALL AND MAINTAIN SITE OPERATIONAL SYSTEM SOFTWARE

• DESIGN, DEVELOP, MAINTAIN, AND APPLY STANDARD WWMCCS ADP COMPUTER PERFORMANCE EVALUATION AND COMPUTER MEASUREMENT TOOLS AND TECHNIQUES

• DEVELOP AND PROCESS ACQUISITION ACTIONS FOR ALL ADP HARDWARE, SOFTWARE, EQUIPMENT MAINTENANCE, AND DATA COMMUNICATIONS
COMPUTER SERVICES DIRECTORATE
SUPPORT AREAS

- COMPUTER BASE
- INSTALLATIONS
- COMPUTER PERFORMANCE EVALUATION
- ADP SECURITY
- VISUAL RECORDING FACILITY
ADP SECURITY

- PROTECT
- PROVIDE
- PREVENT

- COMMUNICATIONS
- EMANATIONS
- HARDWARE

- SOFTWARE
- PHYSICAL
- INFORMATION

#058-CV
# SUMMARY

## COMPETITIVE CONTRACTS

<table>
<thead>
<tr>
<th>TITLE</th>
<th>APPROXIMATE DOLLAR AMOUNT</th>
<th>ANTICIPATED RFP RELEASE DATE</th>
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<tr>
<td>ANALYTICAL SUPPORT TO OSD (STRATEGIC AND THEATER NUCLEAR ANALYSIS)</td>
<td>1.9-2.4M</td>
<td>JUN 88</td>
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<td>ANALYTICAL SUPPORT TO OSD (DEFENSE ANALYSIS)</td>
<td>2.6-3.2M</td>
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<tr>
<td>NUCLEAR ADP SUPPORT TO OJCS</td>
<td>13.0-15.0M</td>
<td>OCT 90</td>
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<tr>
<td>MULTI-USER PROJECT</td>
<td>16.0-18.0M</td>
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<td>GENERAL ADP SOFTWARE SUPPORT</td>
<td>26.0-28.0M</td>
<td>JUL 89</td>
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<tr>
<td>WWMCCS COMPUTER GRAPHICS SUPPORT</td>
<td>5.0-6.0M</td>
<td>JAN 90</td>
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<td>AIR DEFENSE INITIATIVE</td>
<td>2.0-3.0M</td>
<td>OCT 90</td>
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<td>OJCS INFORMATION SYSTEM REQUIREMENT, MANAGEMENT AND SUPPORT</td>
<td>9.1-11.2M</td>
<td>JUL 89</td>
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<td>HYPERCHANNEL AND INTERCONNECTIVITY</td>
<td>3.6-4.2M</td>
<td>APR 88</td>
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<td>9.3-12.1M</td>
<td>JUL 88</td>
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<td>WWMCCS INTERCOMPUTER NEWTORK (WIN) HOST SOFTWARE</td>
<td>4.7-11.3M</td>
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<td>WWMCCS INTERCOMPUTER NETWORK/WWMCCS INFORMATION SYSTEM TEST AND EVALUATION SUPPORT</td>
<td>3.0-4.5M</td>
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<td>GENERAL SYSTEM SOFTWARE SUPPORT</td>
<td>6.1-7.9M</td>
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<tr>
<td>TEMPEST TESTING</td>
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#067-CV
### SMALL AND DISADVANTAGED BUSINESS

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<td>COMPUTER PERFORMANCE EVALUATION</td>
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<td>GRAPHICS SUPPORT</td>
<td>3.6 - 4.4 M</td>
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<tr>
<td>JOINT STAFF SUPPORT INFORMATION SYSTEM</td>
<td>3.3 - 3.9 M</td>
<td>JUN 88</td>
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<td>WORLD WIDE MILITARY COMMAND AND CONTROL SYSTEM INFORMATION SYSTEM CONFIGURATION MANAGEMENT</td>
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<td>JOINT MISSION APPLICATIONS SOFTWARE INTEGRATED SYSTEM TEST</td>
<td>1.0 - 1.4 M</td>
<td>JAN 91</td>
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<td>STRATEGIC FORCES ANALYSIS</td>
<td>0.3 - 0.5 M</td>
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<td>NUCLEAR WEAPONS TARGETING POLICY</td>
<td>0.3 - 0.5 M</td>
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#057-CV
SUMMARY

- JDSSC CHARACTERISTICS
  - DIVERSITY IN MISSIONS
  - DEVELOPMENTAL AND OPERATIONAL ROLES
  - WIDE SPECTRUM OF TECHNICAL ACTIVITY
  - OPERATIONS ORIENTED MILITARY STAFF
  - TECHNICALLY ORIENTED CIVILIAN STAFF
  - WORLDWIDE RESPONSIBILITIES
SUMMARY

- TECHNICAL CHALLENGES
  - GRAPHICS PRESENTATION TECHNIQUES
  - DATABASE CONVERSION
  - COMPUTER MODELING
  - NETWORKING
  - IMPLEMENTATION OF ADA
  - WIS TRANSITION
DEFENSE COMMUNICATIONS AGENCY

JOINT DATA SYSTEMS SUPPORT CENTER
THE NATIONAL COMMUNICATIONS SYSTEM

- MISSION

TO ASSIST THE PRESIDENT, NATIONAL SECURITY COUNCIL,
OFFICE OF SCIENCE AND TECHNOLOGY POLICY AND THE
OFFICE OF MANAGEMENT AND BUDGET IN:

- THE EXERCISE OF THEIR WARTIME AND NON-WARTIME
  EMERGENCY FUNCTIONS, AND THEIR PLANNING AND
  OVERSIGHT RESPONSIBILITIES

- THE COORDINATION OF THE PLANNING FOR AND
  PROVISION OF NSEP COMMUNICATIONS FOR THE
  FEDERAL GOVERNMENT UNDER ALL CIRCUMSTANCES,
  INCLUDING CRISIS OR EMERGENCY
THE NATIONAL COMMUNICATIONS SYSTEM
- KEY RESPONSIBILITIES

- Seek development of a national telecommunications infrastructure which:
  - Is responsive to NSEP needs of the President and the Federal Government
  - Is capable of satisfying priority telecommunications requirements
  - Incorporates the necessary combination of hardness, redundancy, mobility, connectivity, interoperability, restorability, and security to maximize survivability
  - Is consistent with other national policies

- Serve as a focal point for joint industry-government NSEP telecommunications planning

- Establish a joint industry-government national coordinating center
THE NATIONAL COMMUNICATIONS SYSTEM
- COMPOSITION

- EXECUTIVE AGENT

- COMMITTEE OF PRINCIPALS AND THE TELECOMMUNICATIONS ASSETS OF THE ENTITIES THEREON

- MANAGER
OFFICE OF THE MANAGER, NATIONAL COMMUNICATIONS SYSTEM

ASSISTANT TO THE MANAGER, NCS COMMERCIAL COMM

MANAGER, NCS

VICE MANAGER

DEPUTY MANAGER

ASSISTANT DEPUTY MANAGER

OFFICE OF NCS

OFFICE OF NCS

OFFICE OF NCS

NATIONAL COORDINATING CENTER

OFFICE OF NCS

OFFICE OF NCS

OFFICE OF NCS

OFFICE OF NCS

EMERGENCY PREPAREDNESS (OPERATIONS)

PLANS AND PROGRAMS

SECRETARIAT

TECHNOLOGY AND STANDARDS

COUNCIL OF REPRESENTATIVES

COMMITTEE OF PRINCIPALS

#057-J-CV
NCS \text{NSEP TELECOMMUNICATIONS PROGRAMS}

• \text{INDUSTRY-GOVERNMENT JOINT PLANNING}
• \text{NSEP TELECOMMUNICATIONS ARCHITECTURE}
• \text{NSEP TELECOMMUNICATIONS MANAGEMENT}
• \text{TECHNICAL STANDARDS AND INTEROPERABILITY}
INDUSTRY-GOVERNMENT
JOINT PLANNING FOR NSEP
TELECOMMUNICATIONS
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<td>DCA100-87-C-0063</td>
<td>MAY 87 - MAY 90</td>
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NSEP TELECOMMUNICATIONS ARCHITECTURE - E.O. 12472

THE MANAGER SHALL DEVELOP A "RECOMMENDED EVOLUTIONARY TELECOMMUNICATIONS ARCHITECTURE DESIGNED TO MEET CURRENT AND FUTURE FEDERAL GOVERNMENT NSEP TELECOMMUNICATIONS REQUIREMENTS".
## TELECOMMUNICATIONS ARCHITECTURE

### MAJOR CONTRACTUAL EFFORTS

#### CURRENT

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<td>SYSTEMS ENGINEERING &amp; TECHNICAL ANALYSIS</td>
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<td>DCA 100-86-C-0015</td>
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<td>DCA 100-87-C-0139</td>
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<td>NETS MAINTENANCE AND CONFIGURATION MGMT</td>
<td>NETWORK SOLUTIONS</td>
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<td>JAN 88 - JAN 91</td>
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<td>DCA 100-87-C-0042</td>
<td>CSI PILOT PROGRAM</td>
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<td>DCA 100-87-C-0043</td>
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# TELECOMMUNICATIONS ARCHITECTURE  
## MAJOR CONTRACTUAL EFFORTS  
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<td>LOCAL EXCHANGE CARRIER SUPPORT TO NETS</td>
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<td>CURRENT (COMPETITIVE)</td>
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<td>ROBUST NON-HIERARCHICAL ROUTING IN AT&amp;T NETWORK</td>
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<td>&lt;5M</td>
<td>CURRENT (8A)</td>
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<td>CNS DATA SERVICES</td>
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<td>CSI COMM INTEROP</td>
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<td>CSI ITT&amp;C (HUGHES)</td>
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#057-CV
NSEP TELECOMMUNICATIONS
MANAGEMENT - E.O. 12472

THE MANAGER SHALL DEVELOP "PLANS
AND PROCEDURES FOR THE MANAGEMENT,
ALLOCATION AND USE, INCLUDING THE
ESTABLISHMENT OF PRIORITIES OR
PREFERENCES, OF FEDERALLY OWNED
OR LEASED TELECOMMUNICATIONS ASSETS
UNDER ALL CONDITIONS OF CRISIS OR
EMERGENCY".
# TELECOMMUNICATIONS MANAGEMENT
## MAJOR CONTRACTUAL EFFORTS
### CURRENT

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<td>DCA 100-87-C-0063</td>
<td>SYSTEMS ENGINEERING &amp; TECHNICAL ANALYSIS</td>
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<td>DCA 100-87-C-0131</td>
<td>EMERGENCY PREPAREDNESS MGMT INFORMATION SYS</td>
<td>BOOZ-ALLEN</td>
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<td>DCA 100-87-C-0136</td>
<td>TELECOMMUNICATIONS SERVICES PRIORITY SYSTEM, SYSTEM ENGINEERING AND TECHNICAL ANALYSIS</td>
<td>NETWORK STRATEGIES INC</td>
<td>&lt;5M</td>
<td>SEP 87 - SEP 90</td>
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### FUTURE

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<td>&lt;1M</td>
<td>MAR 88 (SBA)</td>
<td>JUN 88 - MAY 89</td>
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#057-CV
TECHNICAL STANDARDS AND INTEROPERABILITY - E.O. 12472

THE MANAGER SHALL DEVELOP "PLANS, PROCEDURES AND STANDARDS FOR MINIMIZING OR REMOVING TECHNICAL IMPEDIMENTS TO THE INTEROPERABILITY OF GOVERNMENT-OWNED AND/OR COMMERCIAL-LY-PROVIDED TELECOMMUNICATIONS SYSTEMS".
## TECHNICAL STANDARDS AND INTEROPERABILITY
### MAJOR CONTRACTUAL EFFORTS
#### CURRENT

<table>
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<tr>
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<td>STUDIES &amp; ANALYSIS IN SUPPORT OF FED TELECOM STDS RELATING TO FACSIMILE &amp; VIDEO TELECONFERENCING</td>
<td>DELTA INFORMATION SYSTEMS</td>
<td>&lt;2M</td>
<td>JUN 87 - SEP 90</td>
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<td>DCA 100-87-C-0027</td>
<td>EMP ASSESSMENT OF #4 ESS</td>
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#### FUTURE

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<td>EMP VULNERABILITY ANALYSIS OF DIGITAL SWITCHES IN PUBLIC SWITCHED NETWORK</td>
<td>&lt;1M</td>
<td>CURRENT (8A)</td>
<td>JUL 88 - JUN 89</td>
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| RADIATION HARDNESS ASSESSMENT OF 4ESS                                        | <2M         | JUN 88 (AT&T)          | JUL 88 - JUN 90       | 057-CV
JTC3A MISSION

THE JTC3A SHALL ENSURE THE INTEROPERABILITY OF TACTICAL COMMAND, CONTROL, AND COMMUNICATIONS (C3) SYSTEMS FOR JOINT OR COMBINED OPERATIONS (INCLUDING NONSTRATEGIC NUCLEAR FORCES) THROUGH THE DEVELOPMENT AND MAINTENANCE OF A JOINT ARCHITECTURE, INTERFACE STANDARDS, AND INTERFACE DEFINITIONS FOR TACTICAL/MOBILE C3 SYSTEMS.
CONSOLIDATION: THE MEETING OF TWO C3 WORLDS

ARCHITECTURE
- STRATEGIC
  - GLOBAL ASSESSMENT
  - STRATEGIC DEFENSE-WIDE
- TACTICAL
  - TACTICAL
  - DOD TACTICAL TECH., PROC.

ENGINEERING & TECHNOLOGY
- STANDARDS
  - NATIONAL INDUSTRIAL DOD-LONGHAUL
- TEST & CERTIFICATION
  - STRATEGIC DEFENSE-WIDE DCS & WWMCCS
- IMPLEMENTATION REVIEW & SPT
  - STRATEGIC NATIONAL DEFENSE-WIDE

THEATER
- DOD COMMON

DCA - ESTABLISHED AGENCY
  - FOCUS ON: DAY-TO-DAY OPNS, INVESTMENT STRAT

JTC3A - EMERGING AGENCY
  - FOCUS ON INTEROPERABILITY

056-4-FEB 88-RC
CONTRACTOR UTILIZATION BY FUNCTIONAL AREA - FY88

- Test & Certification: 43%
- Architecture: 10%
- Technology: 8%
- Interoperability Assurance: 3%
- Management: 12%
- Command & Control: 24%

TOTAL 295 MY
BUDGET ALLOCATION BY FUNCTIONAL AREA – FY88

- MANAGEMENT: 7%
- ARCHITECTURE: 6%
- TECHNOLOGY: 7%
- INTEROPERABILITY ASSURANCE: 3%
- COMMAND & CONTROL: 9%
- TEST & CERTIFICATION

TOTAL $73.9M
JTC3A IMPACT ON CONTRACTS

JOINT TACTICAL C3 SYSTEM LIFE-CYCLE IMPACT

- REVIEW REQUIREMENTS DOCUMENTS TO ENSURE JOINT INTEROPERABILITY CONSIDERED IN CONJUNCTION WITH EXISTING ARCHITECTURES

- REVIEW DEVELOPMENTAL TEST PLANS TO ENSURE JOINT INTEROPERABILITY STANDARDS IMPLEMENTED

- MONITOR OR CONDUCT TESTS DURING DEVELOPMENT TO ENSURE JOINT INTEROPERABILITY STANDARDS ADHERED TO

- MONITOR OR CONDUCT TESTS OF PRODUCTION MODELS FOR CERTIFICATION FOR JOINT USE

- CONFIGURATION MANAGE AND TEST THROUGH OPERATIONAL LIFE TO ENSURE CONTINUING JOINT INTEROPERABILITY
CONCEPT OF OPERATIONS

MISSION ARCH
- AIR OPs
- INTEL/EW
- MARITIME

TECHNOLOGY
- TRANSMISSION & COMSEC
- SWITCHES, CONTROL & ACCESS
- AUTOMATION & SOFTWARE

C3
- FIRE SUPPORT
- OPS CONTROL
- CSS

ALLIES

TECHNOLOGY
- SYSTEMS & NETWORK ANALYSIS
- TACTICAL DATA SYSTEMS
- PROCEDURES

STANDARDIZATION
- TECHNICAL
- PROCEDURAL

TEST & CERTIFICATION
- POLICY
- CERTIFICATION PROGRAM
- JTE
- JITF
- JIES

IMPLEMENTATION SUPPORT
- IIP
- PPBS
- STDs IMPL
- CM
- INTERNATIONAL

#056-H-CV
ARCHITECTURE

- FIRST LEVEL ARCHITECTURE
- JOINT CONNECTIVITY HANDBOOK
- REQUIREMENTS & INTEROPERABILITY DATA BASES
- MISSION ARCHITECTURES
- CINC ARCHITECTURES
- SPECIAL ARCHITECTURES
ASSESSMENTS

● TECHNOLOGY
  - SPECIFIC TECHNOLOGY (e.g., HF)
  - TECHNOLOGICAL ISSUES AFFECTING INTEROPERABILITY
  - RECOMMENDED IMPROVEMENTS
  - TECHNOLOGICAL REFERENCE TUTORIAL

● SYSTEMS
  - SPECIFIC C3 SYS. (ONE OR MORE TECHNOLOGIES) (e.g., MSE)
  - TECHNICAL, PROCEDURAL, OPERATIONAL ISSUES
  - RECOMMENDED IMPROVEMENTS
INTEROPERABILITY ASSURANCE

- FIVE-YEAR INTEROPERABILITY ASSURANCE PLAN (FYIAP)

- TESTING
  - PROCEDURAL
  - HARDWARE
  - TACTICAL/STRATEGIC INTERFACES
  - CERTIFICATION
INTEROPERABILITY ASSURANCE
(CONT'D)

- STANDARDS
  - TECHNICAL
    -- MIL STDs
    -- INTERFACE SPECIFICATIONS
  - PROCEDURAL
  - COMBINED

- INTEROPERABILITY IMPROVEMENT PROGRAM
JINTACCS

- MESSAGE TEXT FORMATS (MTFs)
- TACTICAL DIGITAL INFORMATION LINKS (TADILs)
- CONFIGURATION MANAGEMENT
- COMBINED INTEROPERABILITY MANAGEMENT PLAN (CIMP)
SYSTEM ACQUISITION PROCESS
MISSION CHALLENGES

- Overcoming parochialism - willingness to compromise
- Shortening the staffing process for standards
- Achieving total joint procedural interoperability
- Making U.S. interoperability standards the combined standards
- Obtaining full C/S/A cooperation in:
  - Simplifying architecture development
  - Providing test and evaluation master plans (TEMPs) and required operational capabilities (ROCs) to review
  - Providing interfaces to be certified
- Incorporating standards early in the developing process
SUMMARY

JTC3A:

- Develops architectures
- Develops and reviews standards
- Does technology assessments
- Conducts testing
- Reviews C/S/A requirements, fielding plans, etc

To help ensure joint/combined interoperability of tactical C3 systems that are:

- In being
- In development
# MAJOR JTC3A CONTRACTUAL EFFORTS CURRENT

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<th>CONTRACT NUMBER</th>
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<td>DESIGN, DEVELOP, TEST, INSTALL, SUPPORT AND MAINTAIN THE JOINT INTEROPERABILITY EVALUATION SYSTEM (JIES)</td>
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<td>(33,843K)</td>
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**Contract Number:** DAAB07-87-C-C2282

**In incumbent:** Martin Marietta Inc.
MAJOR JTC3A CONTRACTUAL EFFORTS CURRENT (CONTINUED)

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TO BE RECOMPETED AS PART OF JTC SETA FOLLOW-ON
## MAJOR JTC3A CONTRACTUAL EFFORTS
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<td>JOINT INTERFACE TEST SYSTEM (JITS) MAINTENANCE, PROCEDURAL INTERFACE STANDARDS CONFIGURATION MANAGEMENT (CM) AND JOINT INTERFACE TEST FORCE (JITF) FACILITIES OPERATIONS SUPPORT</td>
<td>NATIONS, INC.</td>
<td>6.293K</td>
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<td>2.481K</td>
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TO BE RECOMPETED AS PART OF JTC O&M FOLLOW-ON
MAJOR JTC3A CONTRACTUAL EFFORTS
CURRENT (CONTINUED)

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<td>- OPERATE, MAINTAIN, AND REPAIR</td>
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<td>MAR 90 - MAR 91</td>
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<td>- OT&amp;E SOFTWARE DEVELOPMENT ON</td>
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<td>- MAINTAIN AND REPAIR MICROS</td>
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<td>- ENTRY AND RETRIEVAL OF DATA</td>
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<td>• EXERCISE SUPPORT</td>
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<td>- PUBLISH LESSONS LEARNED REPORT</td>
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<td>- WRITE TEST DOCUMENTATION</td>
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<td>ANTICIPATED ANNOUNCEMENT</td>
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<tr>
<td></td>
<td>- PUBLISH JOINT COMMUNICATIONS PROCEDURES</td>
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<tr>
<td></td>
<td>• KEY MANAGEMENT &amp; COMSEC ISSUES</td>
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<td>• TESTING SUPPORT</td>
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<td>- WRITE TEST DOCUMENTATION</td>
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056-24R-FEB 88-RC
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<th>CONTRACT NUMBER</th>
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<td>DEA18-83-C-0048</td>
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<td>SETA</td>
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</table>

- **TESTING SUPPORT**
  - DEVELOPING PLANS AND PROCEDURES
  - ASSISTING IN EXECUTION
  - ANALYSIS OF FUTURE TEST REQUIREMENTS

- **TEST DATA MANAGEMENT**
  - AUTOMATED TEST DATA REPOSITORY
  - DEVELOP DATA COLLECTION PROCEDURES

- **PLANNING AND STUDIES**
  - INTEGRATED LOGISTIC SUPPORT
OUTLINE

• ORGANIZATION
• RESOURCES
• PROGRAM HIGHLIGHTS
• FUTURE CHALLENGES
### THE ORGANIZATIONAL EVOLUTION OF C4S

<table>
<thead>
<tr>
<th>Year</th>
<th>Planning</th>
<th>Engineering</th>
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<tbody>
<tr>
<td>1962</td>
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<td>NMCS SYSTEM ENGINEER</td>
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<tr>
<td>1970</td>
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<td>MEECN SYSTEM ENGINEER</td>
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<tr>
<td>1971</td>
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<td>DCS ARCHITECTURE</td>
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<tr>
<td>1973</td>
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<td>1975</td>
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<td>1979</td>
<td></td>
<td>STRATEGIC CONNECTIVITY PROGRAM</td>
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<td>1981</td>
<td></td>
<td>PLANNING AND SYSTEM INTEGRATION</td>
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<tr>
<td>1983</td>
<td></td>
<td>COMMAND AND CONTROL SYSTEM ORGANIZATION</td>
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<tr>
<td>1985</td>
<td></td>
<td>CREATION OF C4S</td>
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</table>
THE C4S MISSION

• PROVIDE PLANNING, SYSTEM ENGINEERING, AND TEST/EVALUATION SUPPORT TO OSD, JCS, AND CINC’S FOR MAJOR C3 SYSTEMS INCLUDING:
  - NATIONAL MILITARY COMMAND SYSTEM
  - C3 SYSTEMS FOR STRATEGIC NUCLEAR FORCES
  - C3 SYSTEMS OF THE CINC’S
  - DEFENSE-WIDE C3 SYSTEMS

• PROVIDE TECHNICAL AND MANAGEMENT ADVICE REGARDING INTEGRATION OF THESE SYSTEMS INTO THE WORLDWIDE MILITARY C2 SYSTEM
OBJECTIVES

• BECOME A LEADER IN ORCHESTRATING THE EVOLUTION OF AN INTEGRATED C3 SYSTEM
  - CONSISTENT WITH NATIONAL POLICY
  - SUPPORTS COMBAT FORCES
  - REFLECTS REALISTIC BUDGET CONSTRAINTS

• BECOME A CENTER OF EXCELLENCE IN C3 SYSTEMS
  - QUANTITATIVE METHODS
  - INNOVATIVE CONCEPTS
  - LEADING EDGE TECHNOLOGY
AREAS OF PRIMARY INTEREST

DOD C3 PROGRAM

THEATER SYSTEMS

COMMAND CENTER SYSTEMS

SATELLITE COMM SYSTEMS

DEFENSE COMM SYSTEM
# SCOPE OF ACTIVITIES

<table>
<thead>
<tr>
<th></th>
<th>CMD CTR</th>
<th>STRAT</th>
<th>THEATER</th>
<th>SAT COM</th>
<th>DCS</th>
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<td>X</td>
<td>X</td>
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<tr>
<td>ENG/ADV DEV</td>
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<tr>
<td>TEST/EVAL</td>
<td>X</td>
<td>X</td>
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OUTLINE

- ORGANIZATION
- RESOURCES
- PROGRAM HIGHLIGHTS
- FUTURE CHALLENGES
TRENDS IN THE C4S GOALS

1985

FORMATION OF A COHERENT STRATEGIC CONNECTIVITY IMPROVEMENT PROGRAM

REVITALIZATION OF NMCS ENGINEERING PROGRAM

DEVELOPMENT OF AN INTEGRATED PROGRAM OF C3 SUPPORT FOR EUROPE AND PACIFIC

DEVELOPMENT OF A COORDINATED PROGRAM OF DEFENSE-WIDE ARCHITECTURE AND PLANNING TO SUPPORT INVESTMENT DECISIONS

1988

EXTEND TO NON-STRATEGIC NUCLEAR FORCES AND STRATEGIC DEFENSE

EXPAND CINC COMMAND CENTER PROGRAM AND EXTEND TO NATIONAL LEVEL

EXTEND TO OTHER CINCS, E.G., CENTCOM, SOUTHCOM, AND TRANSCOM

REFINE LEVEL OF DETAIL TO FACILITATE INTEGRATION OF INFORMATION SYSTEMS
DISTRIBUTION OF C4S CONTRACTUAL SUPPORT EFFORT (BY CUSTOMER)

- JCS (C3S): 59%
- ASD (C3I): 22%
- DCA: 4%
- CINCS: 15%

TOTAL FY88 FUNDS $39 M
DISTRIBUTION OF C4S CONTRACTUAL SUPPORT EFFORT

(BY FUNCTION AREA)

CMD. CTR. 24%

SATELLITE 8%

THEATRE 19%

DEF. WIDE 13%

STRATEGIC 36%

TOTAL FY88 FUNDS $39 M
SOME MANAGEMENT ACCOMPLISHMENTS

• STREAMLINING OF HIRING PROCESS
• RECRUITING CAMPAIGN TO REDUCE VACANCY RATE
• RESTRUCTURING OF CONTRACT PROCEDURES/RESPONSIBILITIES
• STRENGTHENING OF PROPOSAL EVALUATION PROCESS
• 15 COMPETITIVE ACTIONS PROCESSED IN 1986/1987
• DEVELOPMENT OF STRUCTURED PROCESS FOR PROJECT REVIEW
• MECHANISMS FOR COORDINATION/INTEGRATION OF ACTIVITIES
• RESTRUCTURING OF PROGRAM
## C4S Major Contractual Efforts

| COMMAND CENTER SYSTEMS | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | APR |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ABNCIP TECH SPT        | AUG 86 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 86-C-0082              | (O&M) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| CMD CTR INSTS          | SEP 86 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 86-C-0112              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| CMD CTR SETA           | SEP 86 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 86-C-0111              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| CMD CTR SETA           | SEP 86 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-C-0144              | (O&M) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| NMCS BASELINE SPT      | SEP 86 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 86-C-0114              | (O&M) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| FIXED CMD CTR SPT      | APR 87 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-C-0036              | (O&M) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| ABNCIP T&E SPT         | APR 87 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-C-0067              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

| STRATEGIC SYSTEMS     | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | APR |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| STRATEGIC C3 OPNT&E   | DEC 86 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-C-0030              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| STRATEGIC C3 SPT      | FEB 87 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-C-0033              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| C3 ARCH STRAT OPNS    | JUN 86 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-R-0159              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

| MILITARY SATELLITE    | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | APR |
| COMMUNICATIONS        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| MILSATCOM SEXTA       | DEC 86 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-C-0024              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

| DEFENSE-WIDE SYSTEMS  | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | APR |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| C4S EUROPE T&E SPT    | APR 87 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-C-0077              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GLOBAL ASSESS         | JUL 87 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-C-0079              | (O&M) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| DEFENSE-WIDE SEXTA    | DEC 87 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 88-C-0022              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| THEATER ARCH SEXTA    | FEB 88 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 87-R-0072              | (R&D) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

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- Period of performance: current contract term
- Recompete lead-time

#053-A-CV
OUTLINE

- ORGANIZATION
- RESOURCES
- PROGRAM HIGHLIGHTS
- FUTURE CHALLENGES
MAJOR PROGRAM ACCOMPLISHMENTS

• REVITALIZATION OF NMCS ENGINEERING AND EXTENSION TO EXTENSION TO CINC’S COMMAND CENTER

• FORMATION OF A COHERENT STRATEGIC CONNECTIVITY IMPROVEMENT PROGRAM

• DEVELOPMENT OF AN INTEGRATED PROGRAM OF SUPPORT FOR EUROPE AND THE PACIFIC

• STRENGTHENING OF DEFENSE WIDE PLANNING ACTIVITIES
# JCS SUPPORT: NMCS/CINC COMMAND CENTERS

## Revitalization of NMCS Engineering Extension to CINC Command Centers

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<tr>
<th>BEFORE</th>
<th>NOW</th>
<th>IMPACT</th>
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<tbody>
<tr>
<td>• Limited Description of NMCS Objective System</td>
<td>• NMCS MP&lt;br&gt;• NMCS Engineering Plans&lt;br&gt;• Tech Prototyping &amp; Demonstration&lt;br&gt;• Model Command Center&lt;br&gt;• Design Handbook&lt;br&gt;• Tiger Teams&lt;br&gt;• Information Exchange</td>
<td>• Basis for NMCS Budget Issues&lt;br&gt;• Systematic Integration of 50 NMCS Improvement Programs&lt;br&gt;• Orchestration of 20 DoD Command Center Upgrades</td>
</tr>
<tr>
<td>• Reactive Engineering for Ad Hoc Projects</td>
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<tr>
<td>• Uncoordinated Command Center Upgrade Programs</td>
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## JCS SUPPORT: STRATEGIC CONNECTIVITY

### FORMATION OF A COHERENT STRATEGIC CONNECTIVITY IMPROVEMENT PROGRAM

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<td>- COM PROCEDURES FOCUSED ON EAM</td>
<td>- EXPANSION TO FORCE MANAGEMENT</td>
<td>- OPTIMIZE CURRENT CAPABILITY</td>
</tr>
<tr>
<td>- A FEW BIG TESTS</td>
<td>- RESTRUCTURED MULTILEVEL T&amp;E PROGRAM</td>
<td>- EAM</td>
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<td>- CHRONIC COM PROBLEMS</td>
<td>- DIAGNOSTIC PROGRAM</td>
<td>- FM</td>
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<td>- AD HOC ENGINEERING</td>
<td>- END-TO-END SYSTEM ENGINEERING STUDIES</td>
<td>- TWAA</td>
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<td>- SAND BOX DEVELOPMENT</td>
<td>- STRATEGIC CONNECTIVITY ENGINEERING PLAN</td>
<td>- CONF</td>
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<tr>
<td>- FEW QUANT MEAS FOR PLANNING</td>
<td>- STANDARDS DEVELOPMENT</td>
<td>- REALIZE FULL POTENTIAL OF PROGRAMMED IMPROVEMENTS</td>
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<td>- TRANSITION TO SERVICES</td>
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<td>- STRATEGIC CONNECTIVITY MASTER PLAN</td>
<td>- QUANTITATIVE AND OPERATIONAL SUPPORT FOR BUDGET ISSUES</td>
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# Theater CINC Support

## Development of an Integrated and Forward-Looking Program of Support for Europe and the Pacific

<table>
<thead>
<tr>
<th>Before</th>
<th>Now</th>
<th>Impact</th>
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<tbody>
<tr>
<td>- Field Offices Poorly Coordinated</td>
<td>- C4S-EUR Formed</td>
<td>- EUCOM-NATO Synergy</td>
</tr>
<tr>
<td>- NSNf C3 System Engr Limited</td>
<td>- NSNf C3 ENG/Plan Revitalized</td>
<td>- SURV CMD CTRs &amp; Improved Connectivity</td>
</tr>
<tr>
<td>- No mechanism for Eval of Comm System</td>
<td>- Theater Comm Architecture</td>
<td>- Integration of Comm Programs into a Wartime System</td>
</tr>
<tr>
<td>- No Strategy for Rationalization</td>
<td>- Emerging Prog for Rationalization</td>
<td>- Integrated C3I View</td>
</tr>
<tr>
<td>- Weak Coupling with Intell</td>
<td>- Established Intell Interface</td>
<td>- CINC's Use of MOA for Budget</td>
</tr>
<tr>
<td>- NATO Planning Very Weak</td>
<td>- MOA Planning Initiatives</td>
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#053-A-CV
OSD/JCS/CINC SUPPORT: DEFENSE-WIDE C3 ARCHITECTURE AND PLANNING

DEVELOPMENT OF A COORDINATED PROGRAM OF ARCHITECTURE, PLANNING AND ANALYSIS TO ADDRESS C3 INVESTMENT, BUDGET AND PROGRAMMATIC ISSUES

BEFORE

- NUC WPNS MP
- NSNF C3 ARCH
- MILSATCOM
- WORLD WIDE DIGITAL SYS. ARCHITECTURE
- NATO C3
- INTERNATIONAL C3

NOW

- GLOBAL ASSESSMENT
- C3 ARCH & ACQ PLAN
- INTEGRATED MILSATCOM ARCHITECTURE
- DCS WEST HEM ARCHITECTURE
- TECHNOLOGY ASSESSMENT
- C3I INTEGRATION

IMPACT

- INVESTMENT STRATEGY CONSISTENT W/NAT POLICY
- INTEGRATED EVOLVING C3I SYSTEM
- BEST EXPENDITURE OF FUNDS

#053-A-CV
TRENDS IN THE C3 ENVIRONMENT

- EVOLVING STRATEGY AND FORCE STRUCTURE
- PRIOR GROWTH IN THE C3 PROGRAM
- FUTURE LEVELING OFF OF C3 BUDGET
- INCREASED ROLE OF THE CINC'S
- EMPHASIS ON RAPID PROTOTYPING
- ACKNOWLEDGED NEED FOR SYSTEM INTEGRATOR
- DIMINISHING DCA/C4S RESOURCES
ISSUES/OPPORTUNITIES

- IMPACT OF BUDGET CUTS ON PLANNED ARCHITECTURE
- DEGREE OF STANDARDIZATION OF INFORMATION SYSTEMS
- ROLE OF C4S IN RAPID PROTOTYPING AND EVALUATION
- LIMITATIONS IN C4S RESOURCES
- QUALITY OF CONTRACTOR ANALYTICAL SUPPORT
SUMMARY

- CENTER OF C3 EXPERTISE HAS BEEN CREATED
- COMPREHENSIVE PROGRAMS HAVE BEEN FORMULATED
- SIGNIFICANT CONTRIBUTIONS ARE BEING MADE
  - MODERNIZATION OF COMMAND CENTERS
  - IMPROVEMENT IN STRATEGIC CONNECTIVITY
  - INSTITUTIONALIZATION OF MISSION ORIENTED PLANNING
- CHANGES IN C3 ENVIRONMENT ARE CREATING ADDITIONAL
  DEMANDS AND OPPORTUNITIES
- ACTIVE INDUSTRY PARTICIPATION IS THE KEY TO SUCCESS
SOME NEW OR EMERGING EFFORTS

- THE DCS ARCHITECTURE FOR THE 21ST CENTURY
- THE MILSATCOM ARCHITECTURE FOR THE 21ST CENTURY
- THE JCS C2 MASTER PLAN
- NMCS FUSION CENTER FOR FORCE LOCATION/DISPOSITION
- COMMAND CENTER MODULAR BUILDING CONCEPT
- THE TRANSCOM C3 ARCHITECTURE
- THE NATIONAL SECURITY INFORMATION & SITUATION MANAGEMENT SYSTEM ARCHITECTURE
- NEW RAPID PROTOTYPING TEST AND EVALUATION ACTIVITIES
SELECTED C4S PROJECTS

ONGOING ACTIVITIES WHERE CONTACT MAY HELP

- COMMAND CENTER IMPROVEMENT PROGRAM
- METEOR BURST COMMUNICATIONS
- MILSATECOM ARCHITECTURE
- 21ST CENTURY DCS ARCHITECTURE

NEW PROCUREMENTS

- USTRANSCOM C3 ARCHITECTURE
AGENDA FOR TOMORROW

- COMMAND CENTER IMPROVEMENT PROGRAM
- METEOR BURST COMMUNICATION STANDARDS
- MILSATCOM ARCHITECTURE FOR 21ST CENTURY
- DCS ARCHITECTURE FOR THE 21ST CENTURY
- USCINCTRANSCOM C3 ARCHITECTURE
### CENTER FOR C3 SYSTEMS
#### STRATEGIC SYSTEMS DIRECTORATE
##### MAJOR CONTRACTUAL EFFORTS (FUTURE)

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*ARCHITECTURAL STUDY SUPPORT
*PROBLEMS IN C2 ARCHITECTURES
*ANALYSIS OF C3 SYSTEMS SUPPORTING SSBN
*CINC SUPPORT REQUIREMENTS
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- ANALYSIS, EVALUATION, AND INTERGRATION OF C3 FOR OFFENSIVE FORCES
- ANALYSIS, EVALUATION, AND INTERGRATION OF C3 FOR DEFENSIVE FORCES
- ANALYSIS, EVALUATION, AND INTERGRATION OF C3 TO SUPPORT NCA, JCS, AND THE CINCS
- STRATEGIC C3 INTEGRATION AND PLANNING
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**COMMAND CENTER SYSTEMS DIRECTORATE**
**CONTRACTUAL EFFORTS**
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### CENTER FOR C3 SYSTEMS
COMMAND CENTER SYSTEMS DIRECTORATE
CONTRACTUAL EFFORTS
(CURRENT)

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CENTER FOR C3 SYSTEMS
DEFENSE WIDE SYSTEMS DIRECTORATE
MAJOR CONTRACTUAL EFFORTS (FUTURE)

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* USEUCOM TCA
* US/NATO ALLIED TECHNICAL SUPPORT FOR ASD (C3I)
* USPACOM THEATER C3 ARCHITECTURE
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### DEFENSE WIDE SYSTEMS DIRECTORATE
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- Measurement tool
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- Heat Issues
- Design Guidelines for Headquarters
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<td>VALUE</td>
<td>PERIOD OF PERFORMANCE</td>
</tr>
<tr>
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<tr>
<td>DCA100-88-C-0000</td>
<td>SYSTEMS ENGINEERING &amp; TECHNICAL ASSISTANCE SUPPORT</td>
<td></td>
<td>$3.0M</td>
<td>BASE YEAR JAN 88 - DEC 88</td>
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<tr>
<td></td>
<td>* USEUCOM THEATER COMMUNICATIONS ARCHITECTURE</td>
<td></td>
<td>$3.8M</td>
<td>1ST YEAR OPTION JAN 89 - DEC 89</td>
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<tr>
<td></td>
<td>* USPACOM THEATER C3 ARCHITECTURE</td>
<td></td>
<td>$2.9M</td>
<td>2ND YEAR OPTION JAN 90 - DEC 90</td>
</tr>
<tr>
<td></td>
<td>* TECHNICAL SUPPORT TO ASD(C3I) JCS/MCB ON US/NATO/ALLIED C3</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>* WORLDWIDE NSNF C3 ARCHITECTURE</td>
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</tbody>
</table>
**CENTER FOR C3 SYSTEMS**

**MILITARY SATELLITE COMMAND SYSTEMS**

**CONTRACTUAL EFFORTS (CURRENT)**

<table>
<thead>
<tr>
<th>CONTRACT NO.</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD OF PERFORMANCE</th>
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<tbody>
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<td>DCA100-87-C-0024</td>
<td>MILSATCOM SYSTEMS ENGINEERING AND TECHNICAL ASSISTANCE</td>
<td>M/A-COM</td>
<td>$ 2.0M</td>
<td>1ST YEAR OPTION DEC 87 - DEC 88</td>
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<tr>
<td></td>
<td>* MILSATCOM SYSTEMS ARCHITECTURE ENHANCEMENTS/ALTERNATIVES</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>* PHYSICAL &amp; ELECTRONIC SURVIVABILITY OF SATCOM SYSTEMS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>* NATO SATELLITE COMMUNICATIONS COMMITTEE TECHNICAL SUPPORT</td>
<td></td>
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<tr>
<td></td>
<td>* ADVANCED MILSATCOM TECHNOLOGY</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>* COMMERCIAL SATCOM INTEROPERABILITY</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>* DSCS III-C ANALYSIS</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
OVERVIEW

- MISSION/ORGANIZATIONAL STRUCTURE
- MAJOR CUSTOMER/REQUIREMENTS FLOW
- TYPES OF SERVICE
- MAJOR POLICIES/PROCEDURES
- CONTRACT METHODS/MEDIA
- IMPACTS/CHALLENGES
DECCO BACKGROUND

- CENTRAL LEASING ACTIVITY
- RESPONSIBLE FOR PRIVATE LINE CIRCUITS, FACILITIES AND EQUIPMENT
- ANNUAL EXPENDITURES OF OVER $1.2 BILLION
- APPROXIMATELY 91,000 CSAs
- 20 MILLION MILES OF CIRCUITRY
- REQUIREMENTS - AVERAGE PER MONTH
  - 600 STARTS
  - 470 DISCONNECTS
  - 450+ CHANGES
METHODS OF SOLICITATION MUST CHANGE WITH ENVIRONMENT

- HISTORICALLY:
  - LIMITED COMPETITION (BELL SYSTEM AND WESTERN UNION)
  - BASIC AGREEMENTS WITH BOTH COMPANIES
  - MOST SERVICES TARIFFED
  - SINGLE CSA/END-TO-END MANAGEMENT

- TODAY: (AS A RESULT OF CI II/DIVESTITURE/DEREGULATION)
  - MANY PROVIDERS OF SERVICES
  - MUCH SERVICE UNREGULATED/NON-TARIFFED
  - TECHNOLOGY PROVIDES MANY ALTERNATIVE SOLUTIONS
  - END-TO-END MANAGEMENT DIFFICULT/COSTLY
  - CICA REQUIRES FAOC
  - MANY PROVIDERS DO NOT HAVE BASIC AGREEMENTS
# MAJOR CUSTOMERS

<table>
<thead>
<tr>
<th>Customer</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>USAF (HQ AFCC, SCOTT AFB)</td>
<td>35.6%</td>
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<tr>
<td>FAA (HQ FAA/NINE REGIONS)</td>
<td>18.5%</td>
</tr>
<tr>
<td>US ARMY (ARRCO, FT. HUACHUCA, AZ)</td>
<td>15.8%</td>
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<tr>
<td>US NAVY (COMNAVTELCOM, WASHINGTON, DC)</td>
<td>13.1%</td>
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<tr>
<td>DCA</td>
<td>2.2%</td>
</tr>
<tr>
<td>OTHERS</td>
<td>14.8%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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DEFENSE COMMERCIAL COMMUNICATIONS OFFICE
CONTRACT DISTRIBUTION

(91,000 CONTRACTS)

- ARMY - 10,506
- NAVY - 9,260
- FAA - 24,751
- DCA - 19,674
- AIR FORCE - 21,268
- OTHER - 5,541
DEFENSE COMMERCIAL COMMUNICATIONS OFFICE

CUSTOMER OBLIGATIONS

($1.2 BILLION)

- AIR FORCE - 431.6M
- NAVY - 158.7M
- FAA - 223.7M
- DCA - 27.3M
- OTHER - 178.4M
- ARMY - 191.3M
THE REQUIREMENT FLOW PROCESS

- MIL/DEP/AGENCY/FAA USER INITIATES REQUEST FOR SERVICE
- MIL/DEP/AGENCY/FAA TCO REVIEWS REQUIREMENT/GENERATES TSR
- DCA ALLOCATION ENGINEERING DIVISION REVIEWS/GENERATES TSO/TLA
- DECCO - REVIEWS SOW/ACQUISITION PLAN/JUSTIFICATION FOR LTFAOC
- SOLICITS INDUSTRY
- NEGOTIATES/WARDS CONTRACT(S)/CSA(S)
- ADMINISTERS CONTRACTS, CHANGES, MODIFICATIONS, ETC
- PAYS BILLS/RECEIVES REIMBURSEMENT FROM MIL/DEP/AGENCY/FAA
COMMUNICATIONS SERVICES INDUSTRIAL FUND (CSIF)

$20,000,000

CUSTOMER

DECCO CSIF

CARRIER (TELCO)

SERVICE TO CUSTOMER

SERVICE REQUIREMENT

BILLING

PAYMENT

ORDER

BILLING

PAYMENT

#054-G-CV
FOUR BASIC CATEGORIES OF SERVICE

- CIRCUITRY

- CUSTOMER PREMISES EQUIPMENT (CPE) (GENERALLY LEASED WITH MAINTENANCE)

- CIRCUITRY WITH ASSOCIATED CPE

- COMMUNICATIONS SYSTEMS/NETWORKS
CIRCUITRY

60% OF DECCO’S CSAs

○ PRIMARILY LONG-HAUL, DEDICATED, POINT-TO-POINT
○ MINIMAL LOCAL BUSINESS/FX LINES
○ SWITCHED/VOICE AND DATA
○ POINT-TO-POINT VOICE AND DATA
○ VOICE/DATA TRUNKS AND TAILS
○ INTER/INTRALATA
○ INTERNATIONAL WITH & WITHOUT CONUS/FOREIGN TAILS
○ MULTIMEDIA
  - TERRESTRIAL
    -- MICROWAVE
    -- FIBER OPTIC
  - SATELLITE
CUSTOMER PREMISES EQUIPMENT

- MULTIPLEXERS
- MODEMS
- DATA TERMINAL EQUIPMENT FOR COMM CENTERS
- SPECIAL PURPOSE CONSOLES
- TASI EQUIPMENT
- FACSIMILE (BOTH SECURE/NON-SECURE)
- SPECIAL PURPOSE PBXs
- SPECIAL PURPOSE EQUIPMENT
CIRCUITRY WITH ASSOCIATED CPE

● DATA CIRCUITS
  - WIDEBAND (UP TO 1.544)
  - TRUNKS WITH MULTIPLEXERS
  - TAILS WITH MODEMS
  - TECTYPE
  - SECURE/NON-SECURE FAX

● VOICE CIRCUITS
  - SECURE/NON-SECURE
  - WITH KEY EQUIPMENT
  - WITH SIGNALING EQUIPMENT
  - WITH SWITCHING EQUIPMENT
  - ALTERNATE VOICE/DATA

● PUBLIC DATA NETWORK SERVICE
COMMON USER COMMUNICATIONS
SYSTEMS/NETWORKS

- AUTOVON
- AUTODIN
- DDN
- DCTN
- OTS
- WAWS
- WORLDWIDE CHANNELPACK
- IEMATS
- OTHER COMMAND AND CONTROL
# DECCO - COSTS OF COMMON USER NETWORKS/SYSTEMS - FY87

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<tr>
<th>Project</th>
<th>Cost</th>
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<td>AUTOVON</td>
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<td>DEFENSE DATA NETWORK</td>
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<td>ARPA NETWORK</td>
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<td>WASHINGTON AREA WIDEBAND SYSTEM</td>
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<td>HAWAIIAN AREA WIDEBAND SYSTEM</td>
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<td>BULK ENCRYPTED COMM SYSTEMS</td>
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<tr>
<td>DEFENSE COMMERCIAL TELECOM NETWORK</td>
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<td><strong>DECCO OVERHEAD</strong></td>
<td><strong>13.1</strong></td>
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<tr>
<td><strong>DEDICATED LINES AND ALL OTHERS</strong></td>
<td><strong>692.8</strong></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,225.1 M</strong></td>
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OVERVIEW OF MAJOR POLICIES/PROCEDURES

- MAXIMIZE COMPETITION
- BASIC AGREEMENTS
- INQUIRY/QUOTE/ORDER
- NOTICE TO CONTRACTORS
- SINGLE CSA
- USE OF BULK CONTRACTS
CONTRACT METHODS/MEDIA

- BASIC AGREEMENTS
- INQUIRY/QUOTE/ORDER
- DIRECT ORDERS
- ORDERS AGAINST GSA SCHEDULES
- FORMAL RFP/STAND-ALONE CONTRACT
- INDEFINITE DELIVERY/QUANTITY "BULK" CONTRACTS
BASIC AGREEMENTS

- COVERED BY FAR 16.702
- USED WITH 97% OF DECCO CONTRACTS
- EXECUTED WITH APPROXIMATELY 450 COMPANIES
- NOT A CONTRACT
  - CONTAINS NO SERVICES/PRICES
  - WRITTEN UNDERSTANDING OF TERMS AND CONDITIONS THAT APPLY TO CONTRACTS
  - NEW VERSION HAS SECTIONS FOR BOTH TARIFFED AND NON-TARIFFED SERVICE
  - HAS GENERAL AND SPECIAL PROVISIONS

- FACILITIES INQUIRY/QUOTE/ORDER PROCEDURE
  - PRIMARILY FOR LOW VALUE/HIGH VOLUME SERVICES
  - RARELY USED FOR EQUIPMENT LEASES
IMPACTS OF DIVESTITURE

- **PROVISIONING**
  - DOD MAY BECOME "INTEGRATING CONTRACTOR"
  - LEAD TIMES STRETCHED OUT
  - LESS COORDINATION/COOPERATION BETWEEN ATT-IS/ATT-COM/RBOCs/BOCs
  - DOD NO LONGER GETS "SPECIAL" HANDLING
  - CPE DETERIffED - MUST COMPETE

- **BILLING**
  - SINGLE BILL FOR END-TO-END SERVICES MORE COSTLY/DIFFICULT
  - RECORD TRANSFERS BEHIND SCHEDULE
  - BOCs STRIPPING OFF CPE
  - ATT-LONG LINES NO LONGER DICTATES UNIFORM GUIDANCE ON FORMAT/CONTENT
  - INCREASED PAPER vs MAG TAPE MEDIA

- **MAINTENANCE**
  - CPE DETERIffED/RESPONSE TIMES UNCERTAIN BUT COSTS RISING
CHALLENGES DECCO FACES

- MAINTAINING EXISTING SERVICES
- OBTAINING AND TRAINING PERSONNEL
- REASSESS COSTS/BENEFITS OF SINGLE CSA
- GENERIC SPECIFICATIONS FOR SERVICES
- ASSUMING ROLE OF “INTEGRATING CONTRACTOR”
- DEALING WITH THOUSANDS OF CONTRACTORS IN A DEREGERULATED ENVIRONMENT
- HANDLING HUNDREDS OF DISSIMILAR AUTOMATED CONTRACTOR BILLING SYSTEMS
- COMPLIANCE WITH CICA AND PROMPT PAYMENT ACT PROVISIONS
DECCO INITIATIVES

- TO INCREASE EFFICIENCY
  - RETAIN BASIC AGREEMENTS WITH REGULATED CARRIERS
  - REASSESS NEED FOR SIMILAR AGREEMENTS WITH NON REGULATED
  - ENCOURAGE STANDARDIZED MAG TAPE BILLING
  - STIPULATE BILLING REQUIREMENTS IN COMPETITIVE CONTRACTS
  - CONSOLIDATE OR PACKAGE FRAGMENTED REQUIREMENTS
  - DEVELOP NEW SOFTWARE FOR PROCESSING HIGH VOLUME/LOW VALUE SERVICES
  - EMphasis ON TRAINING

- DECCO'S ACQUISITION BULLETIN BOARD SYSTEM (DABBS)
- REORGANIZATION INITIATIVES/CONTRACTING OUT
- PLAN TO RECOMPETE EXPIRED CONTRACTS
- OFFICE AUTOMATION
- PROGRAMMING FOR NEW FACILITY
SMALL AND DISADVANTAGED BUSINESS UTILIZATION PROGRAM

- SMALL BUSINESS DEFINITIONS
- SMALL BUSINESS ACT
- OUTREACH ACTIVITY
- DCA GOAL ATTAINMENT
SMALL BUSINESS
WHO ARE THEY -
WHAT DO THEY DO -

- 97% OF ALL BUSINESS FIRMS ARE SMALL
  13.2 MILLION SMALL ENTERPRISES (3 MILLION FARMS)
- ACCOUNT FOR 48% OF THE NON FARM GNP
- 55% OF LABOR FORCE EMPLOYED BY FIRMS UNDER 100
  EMPLOYEES
- CREATED TWO-THIRDS OF ALL NEW JOBS IN LAST TEN
  YEARS
- WIN $1 OUT OF $2 IN OPEN COMPETITION
- SMALL BUSINESS LEADS IN INNOVATIVE R&D
  PRODUCED 24 TIMES AS MANY MAJOR INNOVATIONS AS LARGE BUSINESS
  RATIO OF INNOVATIONS FOUR TIMES GREATER FOR SMALL BUSINESS
  THAN LARGE FIRMS

061-2-FEB 87-RC
SMALL BUSINESS ACT

- CREATED SMALL BUSINESS ADMINISTRATION

- PROVIDED AUTHORITY FOR SPECIAL ASSISTANCE TO MINORITY BUSINESS ENTERPRISE (MBE) – SECTION 8(A), 1958 AMENDMENT

- INSURED THAT A FAIR SHARE OF GOVERNMENT PROCUREMENT DOLLAR WILL GO TO SMALL BUSINESS (SB)
SMALL BUSINESS ACT, REVISED

- DEFINE SMALL DISADVANTAGED BUSINESS

- REQUIRES SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACT GOALS

- PRESCRIBES ADDITIONAL SBA AUTHORITY

- REQUIRES AGENCIES TO ESTABLISH SMALL BUSINESS GOALS AND REPORT WHEN THEY ARE NOT MET

- AWARDS UNDER $25,000 RESERVED FOR SMALL BUSINESS

- REQUIRES ESTABLISHMENT OF OFFICE OF SMALL AND DISADVANTAGED BUSINESS UTILIZATION
  - DIRECTOR APPOINTED BY HEAD OF AGENCY
  - DIRECTOR REPORTS TO HEAD OF AGENCY OR DEPUTY
DCA OFFICE OF SMALL AND DISADVANTAGED BUSINESS UTILIZATION

- ESTABLISH DIRECTOR SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS UTILIZATION PROGRAM IN THE COMPETITION ADVOCATE'S OFFICE FOR THE TOTAL AGENCY

- ESTABLISH AN ASSOCIATE DIRECTOR SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS UTILIZATION PROGRAM IN THE ACTIVITY COMPETITION ADVOCATE OFFICE AT DECCO
SMALL BUSINESS SET-ASIDES

FOR A BUSINESS TO QUALIFY IT MUST:

- BE ORGANIZED FOR PROFIT
- HAVE PLACE OF BUSINESS IN U.S.
- MAKE SIGNIFICANT CONTRIBUTION TO U.S. ECONOMY, BUT NOT DOMINANT IN THE MARKET PLACE
- MEET THE SMALL BUSINESS SIZE STANDARD
# HOW SMALL IS SMALL?

<table>
<thead>
<tr>
<th>TYPE OF BUSINESS</th>
<th>SIZE STANDARD RANGE</th>
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<tbody>
<tr>
<td><strong>CONSTRUCTION</strong></td>
<td>$7M TO $17M ANNUALLY</td>
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<tr>
<td><strong>R&amp;D</strong></td>
<td>IF NOT MFG, 500 EMPLOYEES</td>
</tr>
<tr>
<td></td>
<td>IF MFG, PRODUCT, SIZE STAND-</td>
</tr>
<tr>
<td></td>
<td>DEPENDS ON SPECIFIC INDUSTRY</td>
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<tr>
<td></td>
<td>(SEE FAR 19.101)</td>
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<tr>
<td><strong>SERVICES</strong></td>
<td>$2.5M TO $14.5M ANNUALLY</td>
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<tr>
<td><strong>COMPUTER RELATED SERVICES</strong></td>
<td><strong>NON-MFG</strong></td>
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<tr>
<td></td>
<td>$7M TO $12.5M ANNUALLY</td>
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</table>
SET-ASIDE PRIORITIES

1. TOTAL SMALL DISADVANTAGED BUSINESS

2. COMBINED SMALL BUSINESS/LABOR SURPLUS AREA (LSA)

3. PARTIAL SET-ASIDE FOR LSA FIRMS

4. TOTAL SET-ASIDE FOR SMALL BUSINESS FIRMS

5. PARTIAL SET-ASIDE FOR SMALL BUSINESS FIRMS
WHO ARE SMALL DISADVANTAGED BUSINESS CONCERNS

AS PRESCRIBED IN FAR 19.508-71, "A SMALL DISADVANTAGED BUSINESS CONCERN IS A COMPANY THAT:

(1) IS AT LEAST 51 PERCENT OWNED BY ONE OR MORE INDIVIDUALS WHO ARE BOTH SOCIALLY AND ECONOMICALLY DISADVANTAGED, OR A PUBLICLY OWNED BUSINESS HAVING AT LEAST 51 PERCENT OF ITS STOCK OWNED BY ONE OR MORE SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS, (2) HAS ITS MANAGEMENT AND DAILY BUSINESS CONTROLLED BY ONE OR MORE SUCH INDIVIDUALS AND (3) THE MAJORITY OF THE EARNINGS OF WHICH ACCURE TO SUCH SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS."
OSD POLICY DIRECTIONS
FY88

• ESTABLISH AN OBJECTIVE THAT 5 PERCENT OF TOTAL COMBINED DOD OBLIGATIONS FOR CONTRACTS AND SUBCONTRACTS AWARDED DURING FYS87-89, BE ENTERED INTO WITH SMALL DISADVANTAGED BUSINESS, HISTORICALLY BLACK COLLEGES AND UNIVERSITIES, AND MINORITY INSTITUTIONS

• DEVELOP OUTREACH PROGRAMS

• ENSURE THAT SDB GOALS IN SUBCONTRACTING PLANS REPRESENT TRULY CHALLENGING GOALS AND MAKE EVERY ATTEMPT TO INCREASE SDB SUBCONTRACT AWARDS

• REQUIRE SEMI-ANNUAL REPORTING TO CONGRESS OF OUR PROGRESS TO ATTAIN THE 5 PERCENT GOAL
## Defense Communications Agency
### Small Business Goal Attainment

<table>
<thead>
<tr>
<th></th>
<th>FY86 Final Goal</th>
<th>FY86 *** Achievement</th>
<th>FY87 Final Goal</th>
<th>FY87 *** Achievement</th>
<th>FY88 Goals</th>
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</thead>
<tbody>
<tr>
<td>SMALL BUSINESS</td>
<td>11.0%</td>
<td>20.5%</td>
<td>3.2%</td>
<td>32.6%</td>
<td>16.7%</td>
</tr>
<tr>
<td>SMALL BUSINESS SET ASIDE</td>
<td>.5%</td>
<td>1.5%</td>
<td>.2%</td>
<td>3.6%</td>
<td>2.0%</td>
</tr>
<tr>
<td>SMALL DISADVANTAGED HISTORICALLY BLACK COLLEGES AND UNIVERSITIES</td>
<td>5.0%</td>
<td>2.4%</td>
<td>5.0%*</td>
<td>4.8%** (8.841M)</td>
<td>5%</td>
</tr>
<tr>
<td>WOMEN OWNED</td>
<td>.3M</td>
<td>1.123M</td>
<td>.3M</td>
<td>3.686M</td>
<td>$.05M</td>
</tr>
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</table>

* Base of $200,000,000 Forecast
** Base of $183,945,000 Experienced
*** Figures represents DCA Headquarters Only
OUTREACH ACTIVITIES

- OSD SPONSORED SMALL BUSINESS CONFERENCES THROUGHOUT THE 10 FEDERAL REGIONS
- OSD SPONSORED SMALL BUSINESS "HOW TO" COUNSELING SERVICES
- DCA SPONSORED SMALL BUSINESS FAIR
- AGENCY ACQUISITION FORECAST
PRESIDENT REAGAN'S STATEMENT

"LET US NOT OVERLOOK THE FACT THAT THE SMALL, INDEPENDENT BUSINESS MAN OR WOMAN CREATES MORE THAN 80 PERCENT OF ALL THE NEW JOBS AND EMPLOYS MORE THAN HALF OF OUR TOTAL WORK FORCE"

*Delivered Joint Session of Congress 28 April 81*
OUTLINE

- CONTRACT INFORMATION
- PURPOSE
- DEFINITION
- DSN SCOPE
- CAPABILITY OBJECTIVES
- OVERVIEW OF DSN PHASES
- CURRENT CONTRACTS
- FUTURE CONTRACTS
- SUMMARY
DEFENSE SWITCHED NETWORK

DESCRIPTION

- DSN PROGRAM PLAN
- RFS/TSR/TSO
- SYSTEM DESIGN CONCEPTS AND POLICY
- CIRCUIT ALLOCATION ENG
- TECHNICAL DOCUMENTATION REVIEW
- TRANSMISSION PLANNING
- SYSTEM OPS/ENG AND MANAGEMENT
- NETWORK MANAGEMENT
- DATA BASE MANAGEMENT
- TRAFFIC ENG/DATA COLLECTION/FORECASTING
- NETWORK IMPLEMENTATION AND INSTALLATION PLANNING
- CUTOVER PLANNING

KEY MILESTONES

DSN PROGRAM MANAGEMENT SUPPORT
- BASE YEAR COMPLETED: SEP 88
- FIRST PRICED OPTION COMPLETED: SEP 89
- SECOND PRICED OPTION COMPLETED: SEP 90

DSN BACKBONE SUPPORT
- BASE YEAR COMPLETED: OCT 88
- FIRST PRICED OPTION COMPLETED: OCT 89
- SECOND PRICED OPTION COMPLETED: OCT 90

DSN WORLDWIDE SUPPORT
- RFP RELEASE: NOV 89
- CONTRACT AWARD: JUL 90

#085-CV

CONTRACT DATA

CONTRACTING AGENCY: DCA
USER COMMANDS/AGENCIES: DCA
POINTS OF CONTACT: ALLEN-HENEMAN
KEY LOCATIONS: WASHINGTON, DC
                  WHEELER AFB, HI
                  VAIHINGEN, WEST GERMANY

<table>
<thead>
<tr>
<th>CONTRACT PERIOD</th>
<th>DOLLAR VALUE</th>
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<tbody>
<tr>
<td>DSN PM FY88-FY90</td>
<td>3,579,600</td>
</tr>
<tr>
<td>DSN BACKBONE FY88-FY90</td>
<td>7,864,601</td>
</tr>
</tbody>
</table>
PURPOSE

- PROVIDE SURVIVABLE, RAPID, AND ECONOMICAL TELECOMMUNICATIONS HIGH PRIORITY USERS
- PROVIDE SERVICE TO LOWER PRIORITY USERS ON A NON-INTERFERENCE BASIS FOR ECONOMY
DEFINITION

“INTER-BASE TELECOMMUNICATIONS SYSTEM WHICH PROVIDES END-TO-END COMMON USER AND DEDICATED TELEPHONE SERVICE FOR THE DoD WITH LATER CAPABILITY OF INCORPORATING DATA AND OTHER TRAFFIC”
OVERVIEW OF DSN PHASES

FY87
AUTOVON (CIRCUIT SWITCHES)
DCTN (HYBRID WEST HEM SERVICES)
NEW CIRCUIT SWITCHES

FY90

DSN I

SECURE VOICE & DATA

FY95

DSN II OVERSEAS
(HYBRID SERVICES & ISDN FEATURES)

DSN I WEST HEM

DSN II
WEST HEM
(HYBRID SERVICES & ISDN FEATURES)

#085-CV
# MAJOR DSN CONTRACTUAL EFFORTS

(DEPUTY DIRECTOR DCS TELECOMMUNICATIONS NETWORKS)

## CURRENT

<table>
<thead>
<tr>
<th>CONTRACT NO.</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
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<td>DEFENSE SWITCHED NETWORK (DSN)</td>
<td>GTE</td>
<td>1,200,000</td>
<td>OCT 87-SEP 88</td>
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<tr>
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<td>PROGRAM</td>
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<td>1,400,000</td>
<td>OCT 88-SEP 89</td>
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<td>MANAGEMENT</td>
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<td>SUPPORT</td>
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<td>NOV 87-OCT 88</td>
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<td>2,700,000</td>
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<td>SUPPORT</td>
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#085-CV
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<th>VALUE RANGE</th>
<th>ANNOUNCEMENT</th>
<th>PERIOD</th>
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<tr>
<td>DEFENSE SWITCHED</td>
<td>5,000,000</td>
<td>OCTOBER 89</td>
<td>OCT 90-SEP 91</td>
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<tr>
<td>NETWORK (DSN)</td>
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<td>OCT 91-SEP 92</td>
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<tr>
<td>WORLDWIDE SUPPORT</td>
<td>5,000,000</td>
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<td>OCT 92-SEP 93</td>
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</table>
SUMMARY

- DSN IS A COMPLEX MULTIFACETED TELECOMMUNICATIONS NETWORK
- DSN IS HEAVILY DEPENDENT ON CONTRACT SUPPORT
  - PROGRAMMATIC DOCUMENTATION/ANALYSIS
  - SYSTEMS MANAGEMENT DOCUMENTATION/ANALYSIS
- COMPANIES WITH COMPREHENSIVE TELECOMMUNICATIONS NETWORK EXPERIENCE ARE NEEDED
- NEXT MAJOR OPPORTUNITY -- FY91 CONTRACT AWARD
DDN
DEFENSE DATA NETWORK
INFORMATION BRIEFING
FOR INDUSTRY DAY
COLONEL THOMAS M. HERRICK
PROGRAM MANAGER
DEFENSE DATA NETWORK (DDN)

THE DATA COMMUNICATIONS SERVICE OF THE DEFENSE COMMUNICATIONS SYSTEM.

THIS SERVICE UTILIZES PACKET SWITCHING TECHNOLOGY TO PROVIDE WORLD-WIDE DATA COMMUNICATIONS FOR INFORMATION EXCHANGE AND FORCE MANAGEMENT.

FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS -
WHO: DEPARTMENT OF DEFENSE (DoD)
WHAT MSN: LONG HAUL DATA TRANSFER
HOW: WORLDWIDE PACKET SWITCHED NETWORK
WHY: MANDATED BY DEPUTY SECRETARY OF DEFENSE 1982

CONTRACT DATA

CONTRACTING AGENCY: DEFENSE COMMUNICATIONS AGENCY (DCA)
USER COMMAND/AGENCY: DEPARTMENT OF DEFENSE (DoD)
POINT OF CONTACT: COLONEL THOMAS M. HERRICK
KEY LOCATIONS: WORLDWIDE

CONTRACT PERIOD: '82-PRESENT
DOLLAR VALUE: $98M/YEAR

KEY MILESTONES

GUIDELINES FOR DDN DEVELOPMENT AND INSTALLATION (1986)
USER REQUIREMENTS DATA BASE (1983-ONGOING)
COMPLETE PACKET SWITCHING NODE ACQUISITION (1990)
CLASSIFIED SEGMENT ESTABLISHMENT (1990)
CONNECT MULTI-LEVEL SECURE HOSTS TO DISNET (1990-ONGOING)
DDN OVERVIEW

- OUR MISSION
- THE NETWORKS TODAY
- MEETING USER NEEDS
DEFENSE DATA NETWORK MISSION

- DDN is the primary means of providing long-haul communications for all DoD data systems
- Principal element of DCS supporting all data communications requirements
THE FAMILY OF DDN NETWORKS

THE NETWORKS TODAY

DSNET1 - DoD SCI USERS
DSNET2 - DoD SECRET USERS
DSNET3 - WWMCCS COMMUNITY
MILNET - DoD UNCLASSIFIED USERS
ARPANET - RESEARCH AND DEVELOPMENT COMMUNITY
OTHER

#088-CV
MILNET GEOGRAPHIC MAP

* C30 IMP = INTERFACE MESSAGE PROCESSOR = PACKET SWITCHING NODE (PSN)
** C30 TAC = TERMINAL ACCESS CONTROLLER
EUROPEAN MILNET GEOGRAPHIC MAP

* C30 IMP = INTERFACE MESSAGE PROCESSOR = PACKET SWITCHING NODE (PSN)
** C30 TAC = TERMINAL ACCESS CONTROLLER
PACIFIC MILNET GEOGRAPHIC MAP

*S C30 IMP = INTERFACE MESSAGE PROCESSOR = PACKET SWITCHING NODE (PSN)
** C30 TAC = TERMINAL ACCESS CONTROLLER

#088-CV
DDN REVISED REQUIREMENTS

Requirements approximately 8,000 hosts

- AIR FORCE: 35%
- NAVY: 10%
- DoD: 20%
- ARMY: 35%
USER ACTIVATION/NETWORK EXPANSION WORK PLAN FY88

RESOURCES

- HARDWARE/SOFTWARE OPERATIONS SUPPORT: 33%
- INFORMATION CENTER: 3%
- LEASE: 40%
- EXPANSION: 24%

WORK PLAN

- VSAT: 13%
- C300 UPGRADE: 16%
- TASK ORDERS: 23%
- NODE INSTALLS: 2%
- NEW SUBSCRIBER: 43%
- OTHER: 3%

LEGEND:

VSAT - VERY SMALL APERTURE TERMINAL (SATELLITE)
C300 - UPGRADES THROUGHPUT CAPACITY OF DDN NODE
TASK ORDERS - ACTIVITIES PRIMARILY IN SUPPORT OF NETWORK SOFTWARE DEVELOPMENT
NODE INSTALLS - INSTALLATION ACTIVITIES; TO SHIP/INSTALL DDN NETWORK SWITCH
OTHER - ACTIVITIES IN GENERAL SUPPORT OF SPECIAL PROJECTS (CONCENTRATOR)
DDN REQUIREMENTS BY FISCAL YEAR

SUBSCRIBERS (THOUSANDS)

- DIFFICULT TO DEFINE
  - 1982 FORECASTED 488 HOSTS FOR 1986
  - 1987 REQUIREMENTS OF 1079 HOSTS
  - 1990 REQUIREMENTS OF 7877 HOSTS

- PROBLEMS CREATED
  - TOPOLOGY
  - EQUIPMENT
  - RESOURCE IMPACT

OPERATIONAL ON THE NETWORK

82
CURRENT INITIATIVES

- TIGER TEAMS: 26 COMPLETE/14 SCHEDULED, 700 PRE-CONFIGURED
- CONCENTRATOR: INSTALLED AT GUNTER AFS
- NETWORK OPTIMIZATION - NEW NODES, UPGRADES, RE-HOMES
- VSATs - 48 OPERATIONAL/TOTAL OF 100 THRU FY88
- T-1s - MORE TRANSMISSION CAPACITY FOR LESS $$
- C/300/PACKET SWITCHING NODE 7.0 - MORE CONNECTS/ BANDWIDTH
- PRIORITIZATION - BY OJCS/SVCS/CINCS
DDN TIGER TEAMS

• PURPOSE
  - MAXIMIZE USER CONNECTIONS

• ACCOMPLISHMENTS SINCE JULY 87
  - 19 TEAMS DISPATCHED
  - 22 NODES ACTIVATED
  - 199 HOSTS CONNECTED
  - 23 NEW TRUNKS ACTIVATED

• FUTURE
  - 14 SITE VISITS PER MONTH, OR AS NEEDED
  - 126 USER CONNECTIONS PER MONTH POSSIBLE
  - PRIORITIZATION WILL PERMIT MASTER SCHEDULE
AIR FORCE CONCENTRATOR

- PURPOSE - CONNECT MORE USERS FASTER; AVOID ACCESS COSTS
- PROTOTYPE AT GUNTER AFS
- SCHEDULE
  - PROTOTYPE INSTALLATION - 6 JANUARY 1988
  - CUTOVER - 11 JANUARY 1988
  - IOC - 29 JANUARY 1988
    AF IMPLEMENTATIONS - TBD
- ALTERNATE CONFIGURATIONS
  - GATEWAYS
  - MULTIPLE CONCENTRATOR PSNs
NETWORK PERFORMANCE

LEGEND:
C/30E - CURRENT VERSION OF PACKET SWITCH HARDWARE
C/300 - UPGRADE OF PACKET SWITCH HARDWARE - FASTER PROCESSOR
PSN6 - CURRENT VERSION OF PACKET SWITCH SOFTWARE
PSN7 - NEW PROTOCOL PROVIDING PERFORMANCE IMPROVEMENT
PSN8 - PROTOCOL PROVIDING CONGESTION CONTROL AND LARGE NET SUPPORT

C/30E & PSN 5
C/300 & PSN 6
C/300 & PSN 7
C/300 & PSN 8/CONGESTION CONTROL
C/300 & PSN 8/LARGE (DEVELOPMENT) NETWORK SUPPORT

NOW ——— MAY 88 ——— DEC 88 ——— JUL 89
SUBSCRIBER PRIORITIZATION

• WHY?
  - DDN WILL WORK IN THE RIGHT ORDER
  - USERS WILL KNOW WHERE THEY STAND
  - THERE ARE LIMITED RESOURCES

• WHO WILL PRIORITIZE? - OJCS/SVCS/CINCS
  - STARTED NOV 87 SCHEME
  - INTEGRATE SERVICE NEEDS THROUGH FY90
  - NETWORK/THEATER PRIORITIES

• RESULTS? MAR 88
DDN T-1 LINES

- GOAL
  - T1 BACKBONE SUPPORT OF USERS
  - T1 BACKBONE COST SAVINGS
  - FASTER T1 ACQUISITIONS AND INSTALLATION
  - WIDE DIVERSITY OF OPTIONS

- TIMELINE

SITES SURVEYED & SELECTED
0

INSTALL EQMT
5

CUTOVER
10

REPORT
15

30 WEEKS COMPLETE TEST
20

ORDER LINES
25

START TEST

#088-CV
# MAJOR CONTRACTUAL EFFORTS

## DCS DATA SYSTEMS (B600)

### CURRENT

<table>
<thead>
<tr>
<th>CONTRACT NO.</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD OF PERFORMANCE</th>
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<tbody>
<tr>
<td>DCA200-88-C-0005</td>
<td>DDN NETWORK DEVELOPMENT AND ENHANCEMENT</td>
<td>BBNCC</td>
<td>TBD</td>
<td>DEC 87 - DEC 88 1 OPTION YEAR</td>
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</table>

- PACKET SWITCH, TAC, GATEWAY AND MONITOR CENTER SOFTWARE DEVELOPMENT
- HARDWARE DEVELOPMENT/ENGINEERING
- NETWORK MODELING/ANALYSIS SUPPORT
- DOCUMENTATION
# MAJOR CONTRACTUAL EFFORTS

**DCS DATA SYSTEMS (B600)**

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<td>• TERM EMULATION PROCESSOR</td>
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<td>• HOST FRONT-END PROCESSOR</td>
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# MAJOR CONTRACTUAL EFFORTS

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<td>DDN HARDWARE MAINTENANCE</td>
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<td>WORLDWIDE DDN HARDWARE MAINTENANCE</td>
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<td>2ND OPTION</td>
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<td>OCT 88 - OCT 89</td>
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<td>BEING CONSIDERED FOR FUTURE COMPETITION.</td>
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### MAJOR CONTRACTUAL EFFORTS

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<td>DDN NETWORK ENGINEERING &amp; SUBSCRIBER INTEGRATION SUPPORT</td>
<td>TELNET</td>
<td>$5M</td>
<td>FEB 88 - JAN 89</td>
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<td>• INTEGRATE SUBSCRIBER HOSTS/Terminals on DDN</td>
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<td>• HOST-INTERFACE TECHNICAL SUPPORT</td>
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<td>• DCA PACIFIC/EUROPE SUPPORT</td>
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# MAJOR CONTRACTUAL EFFORTS

## DCS DATA SYSTEMS (B600) 

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<tr>
<td>DCA200-87-C-0013</td>
<td>DDN CIRCUIT ENGINEERING &amp; INSTALLATION MANAGEMENT SUPPORT</td>
<td>CRC</td>
<td>$4.2M</td>
<td>JAN 88 - JAN 89</td>
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</table>

- PROCESS ALL DDN TELECOMMUNICATIONS SERVICE REQUEST (TSR) ACTIONS

- SITE SURVEY, INSTALLATION MANAGEMENT OF NODES/HOSTS

- DCA PACIFIC/EUROPE SUPPORT

#088-CV
# MAJOR CONTRACTUAL EFFORTS

**DCS DATA SYSTEMS (B600)**

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<td>- NETWORK ACCESS SYSTEM</td>
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<td>- SECURITY AUDIT TRAIL</td>
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<td>- NETWORK STATISTICS FOR USAGE BILLING</td>
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<td>- USER SERVICE DESK (TERMINAL USERS)</td>
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# MAJOR CONTRACTUAL EFFORTS
## DCS DATA SYSTEMS (B600)
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<td>DCA200-86-C-0013</td>
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<td>• OPERATE NETWORK MONITOR CENTERS</td>
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<td>• INSTALL/TEST ALL DDN HARDWARE</td>
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<td>• PRE-INSTALLATION ENGINEERING</td>
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<td>• DDN TRAINING</td>
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<td>• OPERATIONS STATISTICS/ ANALYSIS</td>
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<td>DCA200-86-D-0005</td>
<td>1200 BAUD MODEM</td>
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<td>APR 86 - APR 87</td>
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<td>W/4 1-YR OPTIONS</td>
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**ISSUES/STATUS:**

- ADJUSTMENT TO MAXIMUM QUANTITIES APPROVED BY DECCO.
- CONTRACT MODIFICATION EFFECTIVE 16 APRIL.
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<td>TERMINAL ACCESS CONTROLLER</td>
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<td>MONITORING CENTER (C-70)</td>
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MAJOR CONTRACTUAL EFFORTS
DCS DATA SYSTEMS (B600)

FUTURE

PERIOD OF PERFORMANCE
APR 88 - APR 89

SOLE SOURCE FOR BBN-PECULIAR HARDWARE.

OTHER HARDWARE (MODEMS, CABINETS, CABLES) ARE BEING COMPETED.
# MAJOR CONTRACTUAL EFFORTS
## DCS DATA SYSTEMS (B600)
### FUTURE

<table>
<thead>
<tr>
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<td>SURVEY, INSTALLATION, &amp; INTEGRATION</td>
<td>TBD</td>
<td>APR 88</td>
<td>MAR 89 - FEB 90</td>
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<td>• NETWORK INFORMATION CENTER</td>
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<tr>
<td>• CIRCUIT Provisioning</td>
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## MAJOR DCEC CONTRACTUAL EFFORTS

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<td>DEFENSE COMMUNICATIONS SYSTEMS SWITCHED NETWORK SYSTEM ENGINEERING AND TECHNICAL ASSISTANCE</td>
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<td>- SPEC AND STDS (CCS)</td>
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<td>- INTERFACE CRITERIA</td>
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<td>- IMPACT OF THE ISDN</td>
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<td>- TIP FOR DSN ROUTING</td>
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<td>- MASTER PLAN FOR TESTING</td>
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<td>• SECURE VOICE SYSTEM TASKS:</td>
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<td>- RED SWITCH NETWORK ANALYSIS</td>
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<td>- INTERFACE AND CONTROL CRITERIA</td>
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<td>• INTEGRATED DATA SYSTEM (IDS) TASK AREAS:</td>
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<td>- INFOSEC SECURITY REQUIREMENTS ANALYSIS</td>
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#088-CV
## MAJOR DCEC CONTRACTUAL EFFORTS
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<td>DCA100-88-C-0008</td>
<td>DEFENSE DATA NETWORK MONITORING CENTER</td>
<td>INTERMETRICS, INC.</td>
<td>$424K</td>
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<td>DoD 5200.28-STD (ORANGE BOOK) CRITERIA TO</td>
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<td>MONITORING CENTER</td>
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<td>• DEVELOP SECURITY DESIGN FOR NEXT-GENERATION</td>
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<td>MONITORING CENTER</td>
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MAJOR DCEC CONTRACTUAL EFFORTS
FUTURE

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<tr>
<td>DATA COMMUNICATIONS PROTOCOLS</td>
<td>1-5M</td>
<td>NOV 87</td>
<td>JUN 88 - JUN 89</td>
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<td>• TEST AND EVALUATION OF ISO PROTOCOLS</td>
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<td>1ST OPTION</td>
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<td>• DOD TO ISO TRANSITION ENGINEERING</td>
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<td>JUN 89 - JUN 90</td>
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<td>• EVALUATION OF ENHANCEMENTS TO ISO PROTOCOLS</td>
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<td>• INTERNET ENGINEERING</td>
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<td>JUN 90 - JUN 91</td>
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<td>• UPDATE OF THE PROTOCOL LABORATORY</td>
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<td>TO BE RECOMPETED-ACTIVATED-ANTICIPATED ANNOUNCEMENT</td>
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<td>FUTURE MAJOR DCEC CONTRACTUAL EFFORTS</td>
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<td>- CONDUCT PERFORMANCE TESTS ON THE</td>
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<td>INTERNET AND ANALYZE RESULTS</td>
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<td>- DEVELOP IMPROVED ROUTING STRATEGIES</td>
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<td>FOR THE INTERNET SYSTEM</td>
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<tr>
<td>- FURTHER DEVELOP ISO-DOD APPLICATION</td>
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<tr>
<td>LEVEL GATEWAYS IN SUPPORT OF OSI</td>
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<td>TRANSITION</td>
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<tr>
<td>PERIOD OF PERFORMANCE</td>
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<td>MAR 89 - APR 89</td>
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<td>0-1M</td>
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SUMMARY

• OUR MISSION IS TO PROVIDE DoD DATA COMMUNICATIONS SERVICES

• DDN CONTINUES TO GROW IN RESPONSE TO DATA SUBSCRIBER DEMANDS

• SIGNIFICANCE OF INDUSTRY

• OUR GOAL IS TO RESPOND TO USER NEEDS
DSCS

DEFENSE SATELLITE COMMUNICATIONS
SYSTEM

INFORMATION BRIEFING
FOR INDUSTRY DAY
DEFENSE SATELLITE
COMMUNICATIONS SYSTEM

FUNCTIONAL DESCRIPTION OF SYSTEM
SUPPORTS:
- WHO: DOD/JCS/CINC'S/MILDEPS
- WHAT MSN: SURVIVABLE AND WIDE-BAND
  LONG-HAUL COMMUNICATIONS
- HOW: SHF SATELLITE COMMUNICATIONS
- WHY: UNIQUE AND VITAL REQUIREMENTS
- PRODUCTS: GROUND/SPACE/CONTROL SUBSYSTEMS
- DELIVERABLES: TERMINALS/SATELLITES/CONTROL
  EQUIPMENT/SYSTEM ENGINEERING
  AND TECHNICAL ASSISTANCE

CONTRACT DATA

CONTRACTING AGENCIES:
USA SATELLITE COMMUNICATIONS AGENCY
USAF SPACE DIVISION

USER COMMANDS/AGENCIES/MULTI-SERVICE

POINTS OF CONTACT: COL HENRY (USA)
COL WALKER (USAF)

KEY LOCATIONS: FT. MONMOUTH NJ
LOS ANGELES AFS CA

CONTRACT PERIOD: FY 88-93
DOLLAR VALUE:
$1.73B (ARMY)
$1.72B (AF)

KEY MILESTONES

DSCS OPERATIONAL SUPPORT SYSTEM/DSCS
AUTOMATIC SPECTRUM ANALYZER (DOSS/DASA)
- RFP RELEASE: FEB 88
- CONTRACT AWARD: SEP 88

AN/GSC-XX EARTH TERMINAL
- RFP RELEASE: JAN 90
- CONTRACT AWARD: DEC 90

GENERIC TRAINING DEVICES
- RFP RELEASE: FEB 88
- CONTRACT AWARD: SEP 88

#091-CV
## Earth Terminal Segment

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<th>Mobile</th>
<th>Fixed</th>
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<tr>
<td>FY 92 Now</td>
<td>8</td>
<td>17</td>
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<td>FY 92 Types</td>
<td>12</td>
<td>227</td>
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<tr>
<td>Totals</td>
<td>185</td>
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- **Airborne Earth Terminals**
- **Ground Mobile Earth Terminals**
- **Shipboard Earth Terminals**
- **Heavy Earth Terminals**
- **Medium Earth Terminals**
- **Transportable Earth Terminals**
DEFENSE SATELLITE COMMUNICATIONS SYSTEM

MISSION

PROVIDE RESPONSIVE SUPER HIGH FREQUENCY WIDE-BAND AND ANTIJAM SATELLITE COMMUNICATIONS SUPPORTING CRITICAL NATIONAL, STRATEGIC, AND TACTICAL C3I REQUIREMENTS. SURVIVABLE DURING TRANS AND POST NUCLEAR ATTACK TO SUPPORT COMMUNICATIONS ESSENTIAL TO NATIONAL SURVIVAL
SUMMARY

- OUR MISSION IS TO PROVIDE SURVIVABLE AND LONG-HAUL COMMUNICATIONS
- DSCS CONTINUES TO EXPAND IN RESPONSE TO USER REQUIREMENTS
- CONTRACTOR SUPPORT IS CRITICAL TO PROVIDE HARDWARE, SOFTWARE, AND SYSTEMS ENGINEERING/TECHNICAL ASSISTANCE
SECURE CONFERENCE PROJECT FEATURES

- SURVIVABLE
  - ANTI-JAM
  - HEMP PROTECTED
  - NON-SINGLE POINT SENSITIVE

- INTEROPERABLE
  - WORLDWIDE TERRESTRIAL AND SATELLITE CONNECTIVITY PROVIDING MAJOR END USER EQUIPMENT

- RESPONSIVE
  - 30 SECOND CONFERENCE SET-UP TIME WITH 5 LEVEL PREEMPTION

- SECURE
  - USER-TO-USER ENCRYPTION
JAM RESISTANT SECURE COMMUNICATIONS PROJECT OBJECTIVES

- SURVIVABLE CONNECTIVITY
  - SATELLITE TERMINALS CLOSE TO USERS
  - END-TO-END HEMP PROTECTION
  - NUCLEAR SCINTILLATION PROTECTION

- JAM RESISTANT
  - ECCM EQUIPMENTS
  - SATELLITE MULTIPLE BEAM ANTENNA

- SECURE
  - USER-TO-USER ENCRYPTION
MAJOR DSCS CONTRACTUAL EFFORTS
(DEPUTY DIRECTOR TRANSMISSION SYSTEMS)

FUTURE

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<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>ANNOUNCEMENT</th>
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<td>DEFENSE SATELLITE COMMUNICATIONS SYSTEM (DSCS)</td>
<td>APPROX. $3M TOTAL FOR 3 CONTRACT YEARS</td>
<td>APR 89</td>
<td>OCT 89 - SEP 90</td>
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<td>CONTRACTUAL TECHNICAL ASSISTANCE</td>
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<td>OCT 90 - SEP 91</td>
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<td>DEFENSE COMMUNICATIONS ENGINEERING CENTER (DCEC) SYSTEMS</td>
<td>$6 - 10M TOTAL FOR THE 3 CONTRACT YEARS</td>
<td>JUL 89</td>
<td>MAR 90 - MAR 91</td>
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<tr>
<td>ENGINEERING TECHNICAL ASSISTANCE</td>
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<td>MAR 91 - MAR 92</td>
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<td>MAR 92 - MAR 93</td>
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## MAJOR DSCS CONTRACTUAL EFFORTS
(DEPUTY DIRECTOR TRANSMISSION SYSTEMS)

### CURRENT (CONT)

<table>
<thead>
<tr>
<th>CONTRACT NO.</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD</th>
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<tbody>
<tr>
<td>DCA-100-87-C-0134</td>
<td>PROCUREMENT ADDITIONAL SMART MULTI-CIRCUIT TERMINAL (SMCT) EQUIPMENT, DOCUMENTATION AND ILS TO SUPPORT TERRESTRIAL CRITICAL CONTROL CIRCUITS (TCCC)</td>
<td>STI</td>
<td>$4.8 M</td>
<td>SEP 87 - SEP 89</td>
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<tr>
<td>DCA-100-87-C-0042</td>
<td>DEFENSE COMMUNICATIONS ENGINEERING CENTER (DCEC) DSCS SYSTEMS ENGINEERING AND TECHNICAL ASSISTANCE (SETA)</td>
<td>FEMME COMP INC</td>
<td>$2,756,090</td>
<td>MAR 87 - MAR 88</td>
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<td>$2,149,998</td>
<td>MAR 88 - MAR 89</td>
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<td>$2,703,055</td>
<td>MAR 89 - MAR 90</td>
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<td>DCA-100-88-C-0015</td>
<td>DCEC DEFENSE COMMUNICATIONS SYSTEM (DCS) SETA</td>
<td>AMERICAN</td>
<td>$711K</td>
<td>NOV 87 - NOV 88</td>
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<td>TELEPHONE &amp; HARRIS CORP.</td>
<td>$765K</td>
<td>NOV 88 - NOV 89</td>
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<td>$784K</td>
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## MAJOR DSCS CONTRACTUAL EFFORTS  
(DEPUTY DIRECTOR TRANSMISSION SYSTEMS)

### CURRENT

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<tr>
<th>CONTRACT NO.</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD</th>
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<tbody>
<tr>
<td>DCA-100-87-C-0003</td>
<td>DEFENSE SATELLITE COMMUNICATIONS SYSTEM (DSCS) CONTRACTUAL TECHNICAL ASSISTANCE</td>
<td>GENERAL TELEPHONE &amp; ELECTRONICS (GTE)</td>
<td>$1,312,388</td>
<td>NOV 86 - SEP 87</td>
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<td>$1,125,300</td>
<td>OCT 87 - SEP 88</td>
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<td>$ 965,000</td>
<td>OCT 88 - SEP 89</td>
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<tr>
<td>DCA-100-86-C-0076</td>
<td>PROCURE NEW/UPGRADED DSCS OPERATIONAL SUPPORT SYSTEM (DOSS) EQUIPMENT AND INTEGRATED LOGISTIC SUPPORT (ILS) PACKAGE</td>
<td>STANFORD TELECOMMUNICATIONS, INC. (STI)</td>
<td>$10 M</td>
<td>SEP 86 - MAY 88</td>
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<tr>
<td>DCA-100-87-C-XXXX</td>
<td>PROCURE ADDITIONAL DOSS REMOTE OPERATOR CONSOLES AND MODIFICATION OF CONSOLE SOFTWARE</td>
<td>RJO ENTERPRISES</td>
<td>$1 M</td>
<td>FEB 88 - FEB 89</td>
</tr>
</tbody>
</table>

#091-CV
OVERVIEW

- JOINT DATA SYSTEMS SUPPORT CENTER
- FUTURE CONTRACTS
- SUMMARY
JDSSC MISSION

- PROVIDE CENTRALIZED TECHNICAL SUPPORT OF OPERATING SYSTEMS AND APPLICATIONS SYSTEMS FOR WWMCCS ADP, WIN AND OTHER ADP SYSTEMS TO OJCS, UNIFIED AND SPECIFIED COMMANDS AND OSD

- PROVIDE ANALYTICAL AND ADP OPERATIONAL SUPPORT TO OJCS, UNIFIED AND SPECIFIED COMMANDS AND OSD

- PROVIDE ADP SUPPORT AS SPECIFICALLY DIRECTED BY THE DIRECTOR, JOINT STAFF, TO THE WIS-JOINT PROGRAM MANAGER AND OTHER USERS
RESOURCE ALLOCATION

- SYSTEMS SOFTWARE: 19%
- APPLICATIONS SOFTWARE: 28%
- COMPUTER OPERATIONS: 36%
- MILITARY FORCE STUDIES: 8%
- OTHER: 9%
CONTRACTORS

UNISYS
COMPUTER SCIENCES CORPORATION
HONEYWELL
POTOMAC SYSTEMS ENGINEERING
SYSTEMS RESEARCH & APPLICATIONS CORPORATION
MITRE
SYSTEMS APPLICATIONS INTERNATIONAL CORPORATION
SYNERGY
NAVAL POSTGRADUATE SCHOOL
NAVAL REGIONAL DATA AUTOMATION CENTER
7 COMM GROUP (USAF)
BUREAU OF CENSUS
DEPARTMENT OF STATE
DEPARTMENT OF TRANSPORTATION
DEFENSE NUCLEAR AGENCY
ETC.

GENERAL SUPPORT
GENERAL SUPPORT
GENERAL SUPPORT
OFFICE AUTOMATION
EXERCISE SUPPORT
WIS TRANSITION SUPPORT
STRATEGIC STUDIES
LOGISTICS SYSTEM DEVELOPMENT
LONG RANGE FORECASTING
RISOP/SIOP SUPPORT
MULTICS
POPULATION/INDUSTRIAL NATIONS
ASSESSMENT DATA
ASSESSMENT DATA
VERIFICATION & VALIDATION

058-13-FEB 88-RC
FUTURE CONTRACTS
## Analytic Support to OSD
(STRATEGIC AND THEATRE NUCLEAR ANALYSIS)

**FUNCTIONAL DESCRIPTION OF SYSTEM**

<table>
<thead>
<tr>
<th>SUPPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO:      OSD (PAE AND ISP)</td>
</tr>
<tr>
<td>WHAT MSN: ANALYZE STRATEGIC DEFENSIVE FORCES, THEATER NUCLEAR FORCES, C3 AND STRATEGIC SPACE SYSTEMS, ETC.</td>
</tr>
<tr>
<td>HOW:      RUN AND MAINTAIN COMPUTER SIMULATION MODELS</td>
</tr>
<tr>
<td>WHY:      - SUPPORT DoD'S PLANNING, PROGRAMMING, AND BUDGET SYSTEM, ARMS REDUCTION CONSIDERATIONS. - RESPOND TO DoD, CONGRESSIONAL, AND ADMINISTRATION INQUIRIES</td>
</tr>
<tr>
<td>PRODUCTS: SOFTWARE DEVELOPMENT AND MAINTENANCE. TECHNICAL ANALYSES. FILE DEVELOPMENT AND MAINTENANCE</td>
</tr>
<tr>
<td>DELIVERABLES: TECHNICAL REPORTS, SYSTEM DOCUMENTATION. MODERNIZED SOFTWARE. NEW COMPUTER SIMULATION MODELS. DATA BASE UPDATES</td>
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</table>

## Contract Data

<table>
<thead>
<tr>
<th>CONTRACTING AGENCY:</th>
<th>DCA</th>
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<tr>
<td>USER COMMAND/AGENCY:</td>
<td>OSD, DIR OF PROGRAM ANALYSIS &amp; EVALUATION &amp; ASD FOR INTERNATIONAL SECURITY POLICY</td>
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<tr>
<td>POINT OF CONTACT:</td>
<td>MS. WILSON, DCA/JDSSC/C312</td>
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<td>KEY LOCATIONS:</td>
<td>JDSSC, WASHINGTON AREA</td>
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<td>CONTRACT PERIOD(S):</td>
<td>JUN 88 - MAY 92</td>
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<td>DOLLAR VALUE:</td>
<td>$1.9M - $2.4M</td>
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## Key Milestones

- **ANALYSES OF ALTERNATIVE GROUND WAVE EMERGENCY NETWORK ARCHITECTURE:** JUN 88
- **ANALYSIS OF TACAMO PERFORMANCE:** JUN 88
- **DEVELOPMENT OF A LIBRARY OF CALLABLE SUBROUTINES WHICH COMPUTE THERMAL AND NUCLEAR AFFECTS:** JUN 88
- **RFP RELEASE:** JUN 88

#067-CV
ANALYTICAL SUPPORT TO OSD (DEFENSE ANALYSIS)

FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS
WHO: OSD (PA&E), OJCS, CINC'S, DoD AGENCIES
WHAT MSN: DEFENSE ANALYSIS
HOW: COMPARATIVE ANALYSES OF U.S. AND ALLIED FORCES AGAINST THREAT FORCES BASED ON CURRENTLY PROJECTED PROGRAMS AND THREAT ESTIMATES
WHY: TO IMPROVE OSD OVERSIGHT OF MILITARY PROGRAMS
PRODUCTS: SOFTWARE DEVELOPMENT, DATA DEVELOPMENT, AND ANALYTICAL REPORTS
DELIVERABLES: TECHNICAL REPORTS, SYSTEM DOCUMENTATION, DATA BASE UPDATES, NEW OR MODIFIED SOFTWARE

CONTRACT DATA

CONTRACTING AGENCY: DCA
USER COMMAND/AGENCY: OSD, OJCS, UNIFIED & SPECIFIED COMMAND, DoD AGENCIES, SENIOR SERVICE COLLEGES
POINT OF CONTACT: MR. MARTIN, DCA/JDSSC/C302
KEY LOCATIONS: JDSSC, WASHINGTON AREA

CONTRACT PERIOD(S): FEB 91 - FEB 94

DOLLAR VALUE: $2.6M - $3.2M

KEY MILESTONES

FIVE YEAR DEFENSE PLAN/DEFENSE FORCE PLANNING DATA BASE COMPARISON WITH POM INPUT: JUN 88
DEFENSE PROGRAM TRACKING SYSTEM POM UPDATE: JUN 88
RFP RELEASE: OCT 90

#067-CV
NUCLEAR ADP SUPPORT TO OJCS

FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS
WHO: OJCS, CINC'S, DoD AGENCIES
WHAT MSN: - NUCLEAR FORCE MONITORING AND MANAGEMENT
- CRUISE MISSILE MISSION PLANNING SUPPORT
HOW: INTEGRATED DATABASE SYSTEM
WHY: COMMON SYSTEM FOR COMMAND CENTERS
PRODUCTS: OPERATIONAL SOFTWARE
DELIVERABLES: INTEGRATED SOFTWARE MODULES, SYSTEM DOCUMENTATION

CONTRACT DATA

CONTRACTING AGENCY: DCA
USER COMMAND/AGENCY: OJCS, CINC'S, DoD AGENCIES
POINT OF CONTACT: MRS. DARBY, DCA/JDSSC/C330
KEY LOCATIONS: JDSSC—WASHINGTON AREA
JDSSC—SITE R

CONTRACT PERIOD(S): FEB 91 - FEB 94
DOLLAR VALUE: $13M - $15M

KEY MILESTONES

RFP RELEASE: OCT 90

#067-CV
MULTI-USER PROJECT

FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS:
WHO: OSD, OJCS, CINC'S, SERVICES
WHAT MSN: ADP AND TECHNICAL SUPPORT FOR MULTIPLE USERS
(COMMON-USER SYSTEMS)
HOW: PROVIDE ANALYSIS, MODELING, DESIGN, DEVELOPMENT,
COMPUTER PROGRAMMING, DATA FILE DEVELOPMENT,
AD HOC OPERATIONAL SUPPORT
WHY: PROVIDE OSD AND OJCS WITH INFORMATION
CONCERNING MILITARY POSTURE, READINESS, AND
ACTIVITIES ASSOCIATED WITH THEIR ASSIGNED
MONITORING, ANALYSIS, AND PLANNING FUNCTIONS
PRODUCTS: SOFTWARE DEVELOPMENT AND MAINTENANCE, SYSTEM
DOCUMENTATION, TRAINING, SYSTEM INSTALLATION,
SYSTEM SPECIFICATIONS AND OTHER DOCUMENTATION,
TEST PLANS, SYSTEM MAINTENANCE
DELIVERABLES: MODELS, DATA BASES, SYSTEMS ANALYSES, SYSTEM
DOCUMENTATION, TRAINING, SYSTEM INSTALLATION,
SYSTEM SPECIFICATIONS AND OTHER DOCUMENTATION,
TEST PLANS, SYSTEMS MAINTENANCE

CONTRACT DATA

CONTRACTING AGENCY: DCA
USER COMMAND/AGENCY: OSD, OJCS, CINC'S, SERVICES
POINT OF CONTACT: MRS. DAUL, DCA/JDSSC/C302A
KEY LOCATIONS: JDSSC--WASHINGTON AREA

CONTACT PERIOD(S): FEB 91 - JAN 94
DOLLAR VALUE: $16M - $18M

KEY MILESTONES

RFP RELEASE OCT 90

#067-CV
GENERAL ADP SOFTWARE SUPPORT

FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS
WHO: OJCS, CINC'S, SERVICES
WHAT MSN: GENERAL ADP SOFTWARE AND RELATED TECHNICAL SUPPORT FOR GAMING MODELS, LOGISTICS SYSTEMS, AND OPERATIONS SYSTEMS
HOW: DEVELOP AND MAINTAIN COMPUTER MODELS AND SYSTEMS
WHY: PROVIDE INFORMATION CONCERNING MILITARY POSTURE, READINESS, AND ACTIVITIES
PRODUCTS: TECHNICAL ANALYSES, SOFTWARE DEVELOPMENT AND MAINTENANCE, FILE MAINTENANCE
DELIVERABLES: UPDATED ANALYTICAL MODELS, MODIFIED LOGISTICS AND OPERATIONS SYSTEMS, USER MANUAL AND GUIDES, UPDATED DATA BASES, ANALYSES AND STUDIES

CONTRACT DATA

CONTRACTING AGENCY: DCA
USER COMMAND/AGENCY: OJCS, CINC'S, SERVICES
POINT OF CONTACT: MR. FOGARTY, DCA/JDSSC/C302A
KEY LOCATIONS: JDSSC-WASHINGTON AREA

CONTRACT PERIOD(S): MAR 90 - MAR 93
DOLLAR VALUE: $26M - $28M

KEY MILESTONES

RFP RELEASE JUL 89

#067-CV
AIR DEFENSE INITIATIVE

FUNCTIONAL DESCRIPTION

SUPPORTS
WHO: OSD
WHAT MSN: AIR DEFENSE INITIATIVE (ADI)
HOW: DEVELOPMENT/UPDATING OF SIMULATION/GRAPHICS/DATA BASE SOFTWARE AND ANALYSIS OF WARGAMING RESULTS
WHY: TO PLAN ADI ARCHITECTURE
PRODUCTS: AIR DEFENSE ANALYTICAL REPORTS, GRAPHICS SOFTWARE, UPDATED AIR DEFENSE MODELS (MAINFRAME AND MICRO COMPUTER)
DELIVERABLES: SOFTWARE, DOCUMENTATION & REPORTS

CONTRACT DATA

CONTRACTING AGENCY: DCA
USER COMMAND/AGENCY: OSD, UNDER SECRETARY OF DEFENSE (ACQUISITION)
POINT OF CONTACT: MAJ MERRYMAN, DCA/JDSSC/C312
KEY LOCATIONS: JDSSC–WASHINGTON AREA
CONTRACT PERIOD(S) DOLLAR VALUE
FEB 91 – JAN 94 $2M – $3M

KEY MILESTONES

ADI MODEL ENHANCEMENTS
SPACE SENSOR SUBROUTINE: MAY 88
SPACE ENGAGEMENT SUBROUTINE: JUN 88
SURFACE-TO-AIR SUBROUTINE: JUL 88
ANTISATELLITE MODEL: JUN 88
RED SATELLITE DATE BASE: MAY 88
RED/SATELLITE DATA BASE SUMMARY: OCT 88
RFP RELEASE: OCT 90

#067-CV
**OJCS INFORMATION SYSTEM REQUIREMENT, MANAGEMENT AND SUPPORT**

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<tr>
<th>TRANSITION SUPPORT</th>
<th>INFORMATION MANAGEMENT</th>
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<tr>
<td>CHECKLISTS</td>
<td>STANDARDS</td>
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<td>VALIDATION</td>
<td>ACCESS</td>
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<td>CONFIGURATION CONTROL</td>
<td>CROSS REFS</td>
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<td>IMPLEMENTATION PLANNING</td>
<td>GRAPHICS</td>
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<td>PROJECT MANAGEMENT</td>
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<td>STANDARDS</td>
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**FUNCTIONAL DESCRIPTION OF SYSTEM**

**WHO:** OJCS

**WHAT MSN:** MANAGEMENT PLANNING AND MODERNIZATION SUPPORT

**HOW:** REQUIREMENTS MANAGEMENT AND TECHNOLOGY ASSESSMENT

**WHY:** MAXIMIZE LIMITED RESOURCE UTILIZATION AND SUPPORT MODERNIZATION TRANSITION

**PRODUCTS:**
- INTEGRATED DATA DICTIONARY AND DIRECTORY, DATA ELEMENTS
- STANDARDIZATION SUPPORT, INFORMATION ARCHITECTURE
- DATA BASE AND ANALYSIS TOOLS, INTERFACE CONTROL DOCUMENTS
- DEVELOPMENT AND MAINTENANCE, TECHNOLOGY ASSESSMENTS FOR OJCS OPERATIONAL IMPROVEMENTS

**DELIVERABLES:**
- INTEGRATED STANDARD DATA DICTIONARY
- DATA DIRECTORIES
- SYSTEM AND USER DOCUMENTATION
- TECHNICAL REPORTS
- ACTIVE CONFIGURATION MANAGEMENT SYSTEM SOFTWARE
- MAINTENANCE

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**CONTRACT DATA**

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<thead>
<tr>
<th>CONTRACTING AGENCY:</th>
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<tr>
<td>USER COMMAND AGENCY:</td>
<td>OJCS</td>
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<tr>
<td>POINT OF CONTACT:</td>
<td>MR. BRAGG, DCA JDSSC/C340</td>
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<td>KEY LOCATIONS:</td>
<td>JDSSC - WASHINGTON AREA</td>
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<tr>
<td>CONTRACT PERIODS(S):</td>
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<td>DOLLAR VALUE</td>
<td>$9.1M - $11.2M</td>
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**KEY MILESTONES**

RFP RELEASE JUL 89

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#067-CV
HYPERCHANNEL AND INTERCONNECTIVITY

FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS
WHO: OJCS
WHAT MSN: C2, ADMINISTRATIVE, AND CLERICAL
HOW: INTEGRATION OF FUNCTIONS AND INTERNETTING OF NETWORKS
WHY: IMPROVE JOINT STAFF INFORMATION MANAGEMENT
PRODUCTS: HARDWARE, SYSTEM SOFTWARE, APPLICATIONS, AND SUPPORTING CAPABILITIES
DELIVERABLES: SYSTEM DESIGN
ENHANCED STORAGE (E.G. DATA BASE MACHINE(S))
GATEWAYS,BRIDGES PROTOCOL CONVERTERS
SOFTWARE
TECHNOLOGY ASSESSMENTS

CONTRACT DATA

CONTRACTING AGENCY: DCA
USER COMMAND/AGENCY: OJCS
POINT OF CONTACT: MR. BRAGG, DCA/JDSSC/C340
KEY LOCATIONS: JDSSC-WASHINGTON AREA
JDSSC-SITE R

CONTRACT PERIOD(S): DOLLAR VALUE:
HYPERCHANNEL SEP 88 - SEP 91 $3.6M - $4.2M
INTERCONNECTIVITY MAY 89 - APR 92 TBD

KEY MILESTONES

"HYPERCHANNEL" RFP RELEASE APR 88
"INTERCONNECTIVITY" RFP RELEASE SEP 88

#067-CV
WWMCCS INTERCOMPUTER NETWORK (WIN)
HOST SOFTWARE

FUNCTIONAL DESCRIPTION OF SYSTEM
SUPPORTS
WHO: OJCS, SERVICES, CINC'S, DoD AGENCIES
WHAT MSN: WORLD WIDE MILITARY COMMAND AND CONTROL
HOW: MAINTENANCE AND ENHANCEMENT OF WIN HOST
SOFTWARE
WHY: MAINTAIN MILITARY C2 COMMUNICATIONS
PRODUCTS: SOFTWARE MAINTENANCE AND ENHANCEMENT
SITE ASSISTANCE FOR INSTALLATION, TESTING
AND TRAINING
CONSULTATION SUPPORT FOR NEW PROTOCOL SUITES
COMMUNICATIONS TEST PLANNING SUPPORT
IBM OPERATOR SUPPORT
DELIVERABLES: UPDATED SOFTWARE/SYSTEM AND USER DOCUMENTATION
TECHNICAL REPORTS
TEST PACKAGES

CONTRACT DATA
CONTRACTING AGENCY: DCA
USER COMMAND/AGENCY: OJCS, SERVICES, CINC'S,
DoD AGENCIES
POINT OF CONTACT: LT SOUTH, DCA/JDSSC/C411
KEY LOCATIONS: JDSSC-WASHINGTON AREA
CONTRACT PERIOD(S): OCT 88 - SEP 91
DOLLAR VALUE: $4.7M - $11.3M

KEY MILESTONES
RFP RELEASE JUN 88

#067-CV
FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS
WHO: OJCS, SERVICES, CINC’S, NATO
WHAT MSN: TEST/EVALUATION END-USER NETWORKING PRODUCTS
HOW: EVOLVING NETWORK TESTS
WHY: QUALITY ASSURANCE OF USER INTERFACE/SUBNET
PRODUCTS: NETWORK TESTING AND END-USER IV&V
DELIVERABLES: OPERATIONAL SIMULATIONS
NETWORK CALIBRATION
TEST CRITERIA/FUNCTIONALITY
IV&V PLANS AND REPORTS
TEST PROGRAM MANAGEMENT PLANS

CONTRACT DATA

CONTRACTING AGENCY: DCA
USER COMMAND/AGENCY: OJCS, SERVICES, CINC’S, NATO
POINT OF CONTACT: MR. DIEHL, DCA/JDSSC/C441
KEY LOCATIONS: JDSSC, WASHINGTON AREA

KEY MILESTONES

RFP RELEASE JUN 89

CONTRACT PERIOD(S): MAR 90 - MAR 93
DOLLAR VALUE $3.0M - $4.5M

#067-CV
GENERAL SYSTEM SOFTWARE SUPPORT

FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS
WHO: OJCS, OSD
WHAT MSN: ADP OPERATING SYSTEMS
HOW: MAINTAIN IN A READY STATE ALL JDSSC OPERATIONAL COMPUTER OPERATING SYSTEMS
WHY: ESSENTIAL TO USE OF COMPUTERS
PRODUCTS: COMPUTER OPERATING SYSTEMS
DELIVERABLES: TECHNICAL REPORTS

CONTRACT DATA

CONTRACTING AGENCY: DCA
USER COMMAND/AGENCY: OJCS. OSD
POINT OF CONTACT: MR. J. FOGARTY, DCA/JDSSC/C302A
KEY LOCATIONS: JDSSC-WASHINGTON AREA, JDSSC-SITE R

CONTRACT PERIOD(S): FEB 90 - FEB 93
DOLLAR VALUE: $6.1M - $7.9M

KEY MILESTONES

RFP RELEASE: JUN 89
BEGIN SUPPORT FOR 4 COMPUTERS BY: FY89
BEGIN SUPPORT FOR 4 COMPUTERS BY: FY90
BEGIN SUPPORT FOR 6 COMPUTERS BY: FY91
BEGIN SUPPORT FOR 4 COMPUTERS BY: FY92
BEGIN SUPPORT FOR 3 COMPUTERS BY: FY93

#067-CV
TEMPEST TESTING

FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS
WHO: OJCS
HOW: CONDUCTING TEMPEST ONSITE TESTING OF COMPUTER SYSTEMS, EQUIPMENT AND FACILITIES
OBJECTIVE: TO DETERMINE IF THE TEMPEST PROFILES OF THE ITEMS TESTED ARE COMPLIANT WITH APPLICABLE DIRECTIVES ON THE CONTROL OF COMPROMISING INFORMATION
WHY: REQUIRED BY POLICY DIRECTIVES. JCS PUBLICATION 22 ON WWMCCS COMMUNICATION SECURITY
DELIVERABLES: TECHNICAL TEST REPORTS

CONTRACT DATA

CONTRACTING AGENCY: DCA
OTHER AGENCIES: OJCS
POINT OF CONTACT: MR. PHIL JENSEN,
DCA/JDSSC/C752
KEY LOCATIONS: JDSSC-WASHINGTON AREA
JDSSC-SITE R

CONTRACT PERIOD(S): JUL 90 - JUL 93
DOLLAR VALUE $1.8M - $2.6M

KEY MILESTONES

2-STORY HEMP FACILITY MARCH 88
NMCC PERIMETER TEST APRIL 88
RFP RELEASE OCT 89

#057-CV
## SUMMARY

### COMPETITIVE CONTRACTS

<table>
<thead>
<tr>
<th>TITLE</th>
<th>APPROXIMATE DOLLAR AMOUNT</th>
<th>ANTICIPATED RFP RELEASE DATE</th>
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<tbody>
<tr>
<td>ANALYTICAL SUPPORT TO OSD (STRATEGIC AND THEATER NUCLEAR ANALYSIS)</td>
<td>1.9-2.4M</td>
<td>JUN 88</td>
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<tr>
<td>ANALYTICAL SUPPORT TO OSD (DEFENSE ANALYSIS)</td>
<td>2.6-3.2M</td>
<td>OCT 90</td>
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<tr>
<td>NUCLEAR ADP SUPPORT TO OJCS</td>
<td>13.0-15.0M</td>
<td>OCT 90</td>
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<td>MULTI-USER PROJECT</td>
<td>16.0-18.0M</td>
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<tr>
<td>GENERAL ADP SOFTWARE SUPPORT</td>
<td>26.0-28.0M</td>
<td>JUL 89</td>
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<tr>
<td>WWMCCS COMPUTER GRAPHICS SUPPORT</td>
<td>5.0-6.0M</td>
<td>JAN 90</td>
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<td>AIR DEFENSE INITIATIVE</td>
<td>2.0-3.0M</td>
<td>OCT 90</td>
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<td>OJCS INFORMATION SYSTEM REQUIREMENT, MANAGEMENT AND SUPPORT</td>
<td>9.1-11.2M</td>
<td>JUL 89</td>
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<tr>
<td>HYPERCHANNEL AND INTERCONNECTIVITY</td>
<td>3.6-4.2M</td>
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<td>TBD</td>
<td>SEP 88</td>
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<td>WWMCCS INTERCOMPUTER NEWTORK (WIN) HOST SOFTWARE</td>
<td>4.7-11.3M</td>
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<td>WWMCCS INTERCOMPUTER NETWORK/WWMCCS INFORMATION SYSTEM TEST AND EVALUATION SUPPORT</td>
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<td>GENERAL SYSTEM SOFTWARE SUPPORT</td>
<td>6.1-7.9M</td>
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<tr>
<td>TEMPEST TESTING</td>
<td>1.8-2.6M</td>
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#067-CV
# SMALL AND DISADVANTAGED BUSINESS

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<td>WORLD WIDE MILITARY COMMAND AND CONTROL SYSTEM SOFTWARE AND EVALUATION</td>
<td>1.4 - 1.6 M</td>
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<tr>
<td>COMPUTER PERFORMANCE EVALUATION</td>
<td>0.3 - 0.5 M</td>
<td>FEB 90</td>
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<td>GRAPHICS SUPPORT</td>
<td>3.6 - 4.4 M</td>
<td>JAN 90</td>
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<tr>
<td>JOINT STAFF SUPPORT INFORMATION SYSTEM</td>
<td>3.3 - 3.9 M</td>
<td>JUN 88</td>
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<td>WORLD WIDE MILITARY COMMAND AND CONTROL SYSTEM INFORMATION SYSTEM CONFIGURATION MANAGEMENT</td>
<td>1.7 - 2.3 M</td>
<td>MAR 89</td>
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<td>JOINT MISSION APPLICATIONS SOFTWARE INTEGRATED SYSTEM TEST</td>
<td>1.0 - 1.4 M</td>
<td>JAN 91</td>
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<td>STRATEGIC FORCES ANALYSIS</td>
<td>0.3 - 0.5 M</td>
<td>JUN 91</td>
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<tr>
<td>NUCLEAR WEAPONS TARGETING POLICY</td>
<td>0.3 - 0.5 M</td>
<td>JUN 90</td>
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### MAJOR JDSSC CONTRACTURAL EFFORTS (CURRENT)

<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
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<td><em>DCA100-86-C-0056</em></td>
<td>ANALYTICAL SUPPORT TO OSD STRATEGIC AND THEATRE NUCLEAR ANALYSIS</td>
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<td></td>
<td>o STRATEGIC CONNECTIVITY</td>
<td>SCIENCE APPLICATIONS INTERNATIONAL CORPORATION</td>
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<td></td>
<td>o STRATEGIC DEFENSE</td>
<td>$1.8M</td>
<td>JUN 86 - MAY 89</td>
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<td></td>
<td>o DEFENSE &amp; SPACE NEGOTIATIONS</td>
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<td>o ARMS CONTROL ISSUES</td>
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<td>o BLUE DATA BASE SUPPORT</td>
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<td>o RED TARGET DATA BASE SUPPORT</td>
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<td></td>
<td>o STRATEGIC C3 DATA BASE SUPPORT</td>
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*TO BE RECOMPETED*

ANTICIPATED ANNOUNCEMENT DATE: JUN 88

CONTRACT PERIOD(S): JUN 89 - MAY 92

DOLLAR VALUE: $1.9M - 2.4M
**MAJOR JDSSC CONTRACTUAL EFFORTS**  
(CURRENT)

<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD OF PERFORMANCE</th>
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<tbody>
<tr>
<td>*DCA100-88-C-0032</td>
<td>ANALYTICAL SUPPORT TO OSD</td>
<td>UNISYS</td>
<td>$3M</td>
<td>FEB 88 - FEB 99</td>
</tr>
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</table>

**DEFENSE ANALYSIS**
- SUPPORT TO PROGRAM, ANALYSIS AND EVALUATION
  - GLOBAL FORCE TRENDS DATABASE
  - DEFENSE ANALYSIS MANAGEMENT INFORMATION SYSTEM
  - DEFENSE PLANNING QUESTIONNAIRE FOR NATO
  - DEFENSE PROGRAM TRACKING SYSTEM

*TO BE RECOMPETED*

**ANTICIPATED ANNOUNCEMENT DATE:** OCT 90  
**CONTRACT PERIOD(S):** FEB 91 - FEB 94  
**DO LAR VALUE:** $2.6M - 3.2M
<table>
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<tr>
<th>CONTRACT NUMBER</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
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<tr>
<td>*DCA100-88-C-0034</td>
<td>NUCLEAR ADP SUPPORT TO OJCS</td>
<td>UNISYS</td>
<td>$14M</td>
<td>FEB 88 - FEB 91</td>
</tr>
</tbody>
</table>

- NUCLEAR PLANNING & EXECUTION SYSTEM
  - TECHNICAL & SOFTWARE SUPPORT
  - FIXED GROUND
  - TRANSPORTABLE AND MOBILE NUCLEAR PLANNING & EXECUTION SYSTEM (NPES)
  - COMMUNICATIONS SUBSYSTEM
- THEATER MISSION PLANNING SYSTEM SUPPORT
- NUCLEAR PLANNING SYSTEM SUPPORT
- CONVENTIONAL SUPPORT SYSTEM

*TO BE RECOMPETED*

ANTICIPATED ANNOUNCEMENT DATE: OCT 90

CONTRACT PERIOD(S): FEB 91 - FEB 94

DOLLAR VALUE: $13M - 15M
### MAJOR JOSSC CONTRACTUAL EFFORTS (CURRENT)

<table>
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<tr>
<th>INCUBENT NUMBER</th>
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<tr>
<td>OCA 100-88-C-0032</td>
<td>MULTI-USER PROJECT</td>
<td>UNISYS</td>
<td>$17M</td>
<td>FEB 88 - JAN 9</td>
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<td>DEFENSE SYSTEMS ANALYSIS</td>
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<td>WORLDWIDE ENVIRONMENTAL SUPPORT SYSTEM</td>
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<td>STATUS OF RESOURCES AND TRAINING SYSTEM</td>
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<td>FOREIGN MEDIA ANALYSIS SYSTEM</td>
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<td></td>
<td>NMCS INFORMATION DISPLAY SYSTEM</td>
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<td></td>
<td>JOINT MANPOWER DISTRIBUTION SYSTEM</td>
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<td>GENERAL PURPOSE SYSTEMS QUALITY ASSURANCE</td>
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<td></td>
<td>NMCS AUTOMATED CONTROL EXECUTIVE</td>
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**TO BE RECOMPETED**

ANTICIPATED ANNOUNCEMENT DATE: OCT 90

CONTRACT PERIOD(S): FEB 91 - JAN 94

DOLLAR VALUE: $16M - $18M
### Major JDSSC Contractual Efforts (Current)

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>Description</th>
<th>Incumbent</th>
<th>Value</th>
<th>Period of Performance</th>
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<tbody>
<tr>
<td><em>DCA100-87-C-0046</em></td>
<td>General ADP Software Support</td>
<td>CSC</td>
<td>$27.4M</td>
<td>Mar 87 - Mar 90</td>
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</table>

- **Modeling & Simulation Support**
  - Strategic Wargames Analyses
  - Tactical Warfare Model
  - Nuclear Weapons Allocation Models
  - Strategic Defense Initiatives

- **Logistics & Operations Support**
  - Joint Operations Planning System
  - Logistics Support - Logistics Readiness Center
  - Logistics Support - Ammunition
  - Logistics Support - Petroleum
  - Logistics Support - Civil Engineering

- **Mobility Studies & Analytical Studies**
  - Special Mobility Studies
  - Joint Operations Planning & Execution System
  - Modern Aids to Planning

- **Multi-User Support**
  - Single Integrated Damage Analysis Capability
  - J-5 Force Structure Information Display System
  - International Negotiations System
  - Joint Reconnaissance Information System

*To be recompeted*

**Anticipated Announcement Date:** Jul 89  
**Contract Period:** Mar 90 - Mar 93  
**Dollar Value:** $26M - $28M
## MAJOR JDSSC CONTRACTURAL EFFORTS (CURRENT)

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<th>CONTRACT NUMBER</th>
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<td>DCA100-87-C-0064</td>
<td>WWMCCS COMPUTER GRAPHICS SUPPORT</td>
<td>Computer Based Systems Incorporated</td>
<td>$5.1M</td>
<td>AUG 87 - JUL 90</td>
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<td>MAINTENANCE &amp; ENHANCEMENT OF:</td>
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<tr>
<td></td>
<td>GRAPHIC INFORMATION PRESENTATION SYSTEM</td>
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<td>TERRA PLOT</td>
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<td>GENERALIZED DATA REPORTS SYSTEM</td>
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<td>GIPSYMATE</td>
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*TO BE RECOMPETED*

**ANTICIPATED ANNOUNCEMENT DATE:** JAN 90

**CONTRACT PERIOD(S):** AUG 90 - JUL 93

**DOLLAR VALUE:** $5M - 6M
### Major JDSSC Contractual Efforts (Future)

<table>
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<tr>
<th>Description</th>
<th>Value Range</th>
<th>Anticipated Announcement Date</th>
<th>Period of Performance</th>
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<tbody>
<tr>
<td>Air Defense Initiative</td>
<td>$2M - 3M</td>
<td>Oct 90</td>
<td>Feb 91 - Jan 94</td>
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<tr>
<td>- Develop and update simulation/graphics data base software</td>
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<tr>
<td>- Analyze wargaming results</td>
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MAJOR JDSSC CONTRACTURAL EFFORTS (FUTURE)

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<th>DESCRIPTION</th>
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<th>PERIOD OF PERFORMANCE</th>
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<tbody>
<tr>
<td>OJCS INFORMATION SYSTEM REQUIREMENT, MANAGEMENT AND SUPPORT</td>
<td>$9.1M - 11.2M</td>
<td>JUL 89</td>
<td>JAN 90 - JAN 93</td>
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<tr>
<td>MANAGEMENT PLANNING AND MODERNIZATION SUPPORT</td>
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<td>- DATA BASE MANAGEMENT</td>
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<td>- INTERFACE CONTROL DOCUMENTS</td>
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<td>- TRANSITION PLANNING TOOLS</td>
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<td>- MIS COMPONENTS</td>
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<tr>
<td>- ACTIVE CONFIGURATION MANAGEMENT SYSTEM</td>
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MAJOR JDSSC CONTRACTURAL EFFORTS (FUTURE)

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<tr>
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<td>APR 88</td>
<td>SEP 88 - SEP 91</td>
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<tr>
<td>o MAINTAIN INSTALLED HARDWARE/SOFTWARE BASE</td>
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<tr>
<td>o ENHANCE CONNECTIVITY WITH IBM HOST</td>
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<tr>
<td>o IMPLEMENT DOD STANDARD PROTOCOLS</td>
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<tr>
<td>o ENHANCE END-USER INTERACTIVE CAPABILITY</td>
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<tr>
<td>INTERCONNECTIVITY</td>
<td>TBD</td>
<td>SEP 88</td>
<td>MAY 89 - APR 92</td>
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<tr>
<td>o END-TO-END SECURITY RISK ANALYSIS</td>
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<tr>
<td>o DESIGN/IMPLEMENT INTEGRATED QJCS INFORMATION SYSTEM (OIS)</td>
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<tr>
<td>o DEFINE AND IMPLEMENT OIS INFORMATION ARCHITECTURE</td>
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<tr>
<td>o PROVIDE JOINT STAFF CORPORATE DATA BASE</td>
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<tr>
<td>o DEVELOP PROTOCOL TRANSLATIONS</td>
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<tr>
<td>o CENTRALIZE AUTHENTICATION AND CONTROL</td>
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<tr>
<td>o END-END PERFORMANCE MONITORING</td>
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## Major JDSSC Contractual Efforts (Current)

<table>
<thead>
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<th>Description</th>
<th>Incumbent</th>
<th>Value</th>
<th>Period of Performance</th>
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<tbody>
<tr>
<td>WWMCCS Intercomputer Network (WIN) Host Software</td>
<td>WWMCCS INTERCOMPUTER NETWORK SOFTWARE MAINTENANCE &amp; ENHANCEMENT SUPPORT</td>
<td>COMPUTER SCIENCES CORPORATION</td>
<td>$6.8M</td>
<td>NOV 84 - SEP 88</td>
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| *DCA 100-85-C-0002* | **TO BE RECOMPETED**  
  Anticipated Announcement Date: JUN 88  
  Contract Period(s): OCT 88 - SEP 91  
  Dollar Value: $4.7M - 11.3M


## Major JDSSC Contractual Efforts (Current)

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>Description</th>
<th>Incumbent</th>
<th>Value</th>
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<tbody>
<tr>
<td>DCA 100-87-C-0031</td>
<td><em>WIN END-USER OPERATIONAL TEST AND EVALUATION</em></td>
<td>UNISYS</td>
<td>$5.1M</td>
<td>MAR 87-MAR 90</td>
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<td></td>
<td>O DEFINITION AND DEVELOPMENT OF WIN, LAN, AND WIS/DDN TEST AND EVALUATION TOOLS</td>
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<tr>
<td></td>
<td>O REVIEW, ANALYSIS, AND EVALUATION OF WIN CONCEPTS AND CONFIGURATIONS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>O WIN USER FUNCTIONALITY DEFINITION REPORTS</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>O WIN USER TRAINING</td>
<td></td>
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</tr>
</tbody>
</table>

*TO BE RECOMPETED*

Anticipated Announcement Date: Jun 89

Contract Period(s): Mar 90-Mar 93

Dollar Value: $3M - 4.5M
MAJOR JDSSC CONTRACTUAL EFFORTS
(CURRENT)

<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCA 100-85-C-0040</td>
<td>0 SYSTEM SOFTWARE MODIFICATION, TESTING, IMPLEMENTATION, DOCUMENTATION</td>
<td>COMPUTER SCIENCES CORPORATION</td>
<td>$6M</td>
<td>FEB 87-FEB 90</td>
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<tr>
<td></td>
<td>0 SYSTEM SOFTWARE SUPPORT FOR IBM, DEC, HONEYWELL, DATA GENERAL, AND WANG OPERATING SYSTEMS</td>
<td></td>
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<tr>
<td></td>
<td>0 ADP SECURITY RISK ANALYSIS</td>
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<tr>
<td></td>
<td>0 TEST, EVALUATION, INSTALLATION IMPLEMENTATION, AND MAINTENANCE OF ADP SECURITY SOFTWARE</td>
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</tbody>
</table>

*TO BE RECOMPETED

ANTICIPATED ANNOUNCEMENT DATE: JUN 89
CONTRACT PERIOD(S): FEB 90-FEB 93
DOLLAR VALUE: $6.1M - 7.9M
**MAJOR JDSSC CONTRACTURAL EFFORTS**

(CURRENT)

<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TEMPEST TESTING</strong></td>
<td></td>
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<tr>
<td><em>DCA 100-87-C-TBD</em></td>
<td>CONDUCTON-SITE TEMPEST TESTING</td>
<td>HONEYWELL INFORMATION SYSTEMS</td>
<td>$3M</td>
<td>APR 87 - APR 90</td>
</tr>
</tbody>
</table>

**TO BE RECOMPETED**

ANTICIPATED ANNOUNCEMENT DATE: OCT 89

CONTRACT PERIOD(S): JUL 90 - JUL 93

DOLLAR VALUE: $1.8M - 2.6M
## Major JDSSC Contractual Efforts (Current)

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>Description</th>
<th>Incumbent</th>
<th>Value</th>
<th>Period of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCA 100-87-C-TBD</td>
<td>- Maintenance of software performance monitor (SPM)</td>
<td>Advanced Technology Systems</td>
<td>$3M</td>
<td>Feb 87 - Feb 90</td>
</tr>
<tr>
<td></td>
<td>- Local area network</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Performance reporting system, communications processor simulator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Development and enhancement of computer performance evaluation tools</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*To be recompeted*

**Anticipated Announcement Date:** Jul 89  
**Contract Period(s):** Feb 90 - Feb 93  
**Dollar Value:** $2M - 4M
<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADP HARDWARE MAINTENANCE</td>
<td>ADP HARDWARE MAINTENANCE FOR EQUIPMENT SUCH AS WANG, IBM, VAX, DATA GENERAL (MAJOR MAINTENANCE AREAS)</td>
<td>AUTOMATED DATA MANAGEMENT, INC. (8 [A] CONTRACT)</td>
<td>$7M</td>
<td>various</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DATA GENERAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TELOS (SMALL BUSINESS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>VAX</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NATIONAL ADVANCED SYSTEMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EATON CORPORATION</td>
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<td></td>
</tr>
</tbody>
</table>

*MAJORITY AWARDED BY OTHER THAN DCA CONTRACTING OFFICE*
### MAJOR JDSSC CONTRACTUAL EFFORTS (CURRENT)

<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCA 100-87-C-0019</td>
<td>TEST, EVALUATION AND DISTRIBUTION OF SYSTEM SOFTWARE</td>
<td>TECHNOLOGY SYSTEMS</td>
<td>$4.8M</td>
<td>JAN 87 - JAN 90</td>
</tr>
</tbody>
</table>

- Test, Evaluation and Distribution Support
- Establish Supplemental Guidelines for Software Development and System Operation
- Data Base Analysis
- Software Support
MAJOR JDSSC CONTRACTURAL EFFORTS
(CURRENT)
(CONTINUED)

- DEVELOP CONVERSION AIDS
- DEVELOP, MAINTAIN AND DOCUMENT TEST PACKAGES
- PROVIDE INSTALLATION SUPPORT
- MAINTAIN PRODUCT INVENTORIES

TO BE RECOMPETED
*100% SMALL BUSINESS SET ASIDE

TO BE RECOMPETED
ANTICIPATED ANNOUNCEMENT DATE: JUL 90
CONTRACT PERIOD(S): JAN 90 - JAN 93
DOLLAR VALUE: $4M - $6M
## MAJOR JDSSC CONTRACTURAL EFFORTS (FUTURE)

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>ANTICIPATED ANNOUNCEMENT DATE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFENSE DATA NETWORK INTERFACE ADAPTOR</td>
<td>$4M - $5M</td>
<td>JUL 88</td>
<td>JUL 89 - JAN 91</td>
</tr>
</tbody>
</table>

- DEVELOP ADAPTOR TO CONNECT REMOTE TERMINALS AND REMOTE WWMCCS PROCESSORS TO DDN
  - SUPPORT DOD STANDARD PROTOCOL SUITE
  - HARDWARE AND SOFTWARE DEVELOPMENT
  - MULTI USER ENVIRONMENT
  - USER DOCUMENTATION AND TRAINING REQUIRED

- POST DEVELOPMENT/DEPLOYMENT SUPPORT WILL CONTINUE TO BE CONTRACTED

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>ANTICIPATED ANNOUNCEMENT DATE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCAL AREA NETWORK (LAN) DEVELOPMENT AND MAINTENANCE SUPPORT</td>
<td>LESS THAN $1M</td>
<td>JUN 89</td>
<td>JAN 90 - DEC 93</td>
</tr>
</tbody>
</table>

- OPERATE, MAINTAIN AND ENHANCE WIS-DEVELOPED LANS
MAJOR JDSSC CONTRACTUAL EFFORTS
(FUTURE)

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>ANTICIPATED ANNOUNCEMENT DATE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO PROTOCOL SUPPORT</td>
<td>$3.5M - $4.5M</td>
<td>JUN 89</td>
<td>JAN 90 - JAN 92</td>
</tr>
</tbody>
</table>

- PROVIDE ISO PROTOCOL COMMUNICATIONS FOR THE WIS/WWMCCS BASED SYSTEMS
- IDENTIFY AND EVALUATE COMMERCIAL OFF THE SHELF PROTOCOL PRODUCTS MOST SUITABLE FOR WWMCCS
- IDENTIFY AREAS IN WHICH ENHANCEMENTS ARE NEEDED TO SATISFY WWMCCS REQUIREMENTS
  - SECURITY
  - NETWORK MANAGEMENT
  - FUNCTIONALITY
  - INTERFACES TO EXISTING APPLICATIONS
- IMPLEMENT REQUIRED ENHANCEMENTS AND PROVIDE AN INTEGRATED SUITE FOR WWMCCS
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>ANTICIPATED ANNOUNCEMENT DATE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIS CONFIGURATION MANAGEMENT SYSTEM</td>
<td>$4M - 6M</td>
<td>1990</td>
<td>1990 1993</td>
</tr>
</tbody>
</table>
JOINT TEST ELEMENT Seta
CONTRACT DESCRIPTION

THE SERVICES PROVIDED BY THE CONTRACTOR SHALL ENCOMPASS A WIDE RANGE OF SCIENTIFIC, ENGINEERING, AND INTEGRATED LOGISTICS SUPPORT TASKS IN SUPPORT OF JTC3A MISSIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, ALL SUPPORT ASPECTS DURING PLANNING, CONDUCTING AND REPORTING OF INTEROPERABILITY TESTING. THE CONTRACTOR SERVICES SHALL ALSO INCLUDE DEVELOPMENT, DESIGN, AND ENGINEERING MAINTENANCE FOR SELECTED ITEMS OF EQUIPMENT USED IN THE JOINT TEST FACILITY.

FUNCTIONAL DESCRIPTION OF SYSTEM
SUPPORTS:

- WHO: JOINT TEST ELEMENT, FORT HUACHUCA, AZ
- WHAT MISSION: INTEROPERABILITY TESTING
- HOW: BY PROVIDING NON-PERSONAL SERVICES IN RESPONSE TO VARIOUS TASKS
- WHY: EXPAND EXPERIENCE BASE AT JTE TO SUPPORT TESTING MISSION
- PRODUCTS: SERVICES AND REPORTS
- DELIVERABLES: VARIES ACCORDING TO TASK

CONTRACT DATA

CONTRACTING AGENCY: FORT HUACHUCA
USER COMMAND/AGENCY: JTC3A
POINT OF CONTACT: GERRY GORZCOH, 1-602-538-1691
KEY LOCATIONS: FORT HUACHUCA, AZ

CONTRACT PERIOD(S):

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Dollar Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JUL 88 - JUL 89</td>
<td>500K - 1000K</td>
</tr>
<tr>
<td>JUL 89 - JUL 90</td>
<td>700K - 1,200K</td>
</tr>
<tr>
<td>JUL 90 - JUL 91</td>
<td>900K - 1,400K</td>
</tr>
<tr>
<td>JUL 91 - JUL 92</td>
<td>1,100K - 1,600K</td>
</tr>
</tbody>
</table>

MAJOR JTC3A CONTRACTUAL EFFORTS FUTURE

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>ANTICIPATED ANNOUNCEMENT DATE</th>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>JTE Seta Contract to provide engineering and scientific support</td>
<td>500K - 1000K</td>
<td>FEB 88</td>
<td>OCT 88 - OCT 89</td>
</tr>
<tr>
<td>100% Small Business Set-Aside</td>
<td>700K - 1,200K</td>
<td>OCT 89 - OCT 90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>900K - 1,400K</td>
<td>OCT 90 - OCT 91</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,100K - 1,600K</td>
<td>OCT 91 - OCT 92</td>
<td></td>
</tr>
</tbody>
</table>

#056-H-CV
JOINT TEST CENTER SETA
CONTRACT DESCRIPTION

THE SERVICES PROVIDED BY THE CONTRACTOR SHALL ENCOMPASS A WIDE RANGE OF SCIENTIFIC, ENGINEERING, AND INTEGRATED LOGISTICS SUPPORT TASKS IN SUPPORT OF JTC3A MISSIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, ALL SUPPORT ASPECTS DURING PLANNING, CONDUCTING AND REPORTING OF INTEROPERABILITY TESTING. THE CONTRACTOR SERVICES SHALL ALSO INCLUDE DEVELOPMENT, DESIGN, AND ENGINEERING MAINTENANCE FOR SELECTED ITEMS OF EQUIPMENT USED IN THE JOINT TEST FACILITY.

FUNCTIONAL DESCRIPTION OF SYSTEM
SUPPORTS:
• WHO: JOINT TEST CENTER, FORT HUACHUCA, AZ
• WHAT MISSION: INTEROPERABILITY TESTING
• HOW: BY PROVIDING NON-PERSONAL SERVICES IN RESPONSE TO VARIOUS TASKS
• WHY: EXPAND EXPERIENCE BASE AT JTC TO SUPPORT TESTING MISSION
• PRODUCTS: PRINCIPALLY REPORTS
• DELIVERABLES: VARIES ACCORDING TO TASK

CONTACT DATA
CONTRACTING AGENCY: FORT HUACHUCA
USER COMMAND/AGENCY: JTC3A
POINT OF CONTACT: MR. STEVE BRIDGES, 1-602-538-2910
KEY LOCATIONS:
FORT HUACHUCA, AZ

CONTRACT PERIOD(S):
DOLLAR VALUE
JUL 92 - JUL 93
2,000K - 4,000K
JUL 93 - JUL 94
2,250K - 4,250K
JUL 94 - JUL 95
2,500K - 4,500K
JUL 95 - JUL 96
2,750K - 4,750K
JUL 96 - JUL 97
3,000K - 5,000K

MAJOR JTC3A CONTRACTUAL EFFORTS FUTURE

DESCRIPTION
PROVIDE SETA TO THE JOINT TEST CENTER

VALUE RANGE
2,000K - 4,000K
2,250K - 4,250K
2,500K - 4,500K
2,750K - 4,750K
3,000K - 5,000K

ANTICIPATED ANNOUNCEMENT DATE
DEC 91

PERIOD OF PERFORMANCE
OCT 92 - OCT 93
OCT 93 - OCT 94
OCT 94 - OCT 95
OCT 95 - OCT 96
OCT 96 - OCT 97

#056-H-CV
JOINT TEST CENTER O&M
CONTRACT DESCRIPTION

THE CONTRACTOR WILL BE TASKED TO PERFORM NON-PERSONAL TECHNICAL SUPPORT INVOLVING INTEROPERABILITY TESTING. THIS SUPPORT WILL ENCOMPASS A WIDE RANGE OF FUNCTIONS TO INCLUDE SITE PREPARATION, EQUIPMENT CONFIGURATION, OPERATION OF GOVERNMENT OWNED TEST EQUIPMENT, AND MAINTENANCE OF SUCH EQUIPMENT.

FUNCTIONAL DESCRIPTION OF SYSTEM SUPPORTS:

- WHO: JOINT TEST CENTER, FORT HUACHUCA, AZ
- WHAT MISSION: INTEROPERABILITY TESTING
- HOW: PROVIDING NON-PERSONAL SERVICES IN RESPONSE TO TASK ASSIGNMENTS
- WHY: EXPAND EXPERTISE AND CAPABILITY OF THE JTC TO PERFORM ITS MISSION
- PRODUCTS: SERVICES AND REPORTS
- DELIVERABLES: VARIES DEPENDING UPON TASK ASSIGNED

<table>
<thead>
<tr>
<th>CONTRACT DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTRACTING AGENCY: FORT HUACHUCA</td>
</tr>
<tr>
<td>USER COMMAND/AGENCY: JTC3A</td>
</tr>
<tr>
<td>POINT OF CONTACT: MR. STEVE BRIDGES, 1-602-538-2910</td>
</tr>
<tr>
<td>KEY LOCATIONS: FORT HUACHUCA, AZ</td>
</tr>
<tr>
<td>CONTRACT PERIOD(S): DOLLAR VALUE</td>
</tr>
<tr>
<td>MAR 92 - MAR 93: 4,000K - 6,000K</td>
</tr>
<tr>
<td>MAR 93 - MAR 94: 4,500K - 6,500K</td>
</tr>
<tr>
<td>MAR 94 - MAR 95: 5,000K - 7,000K</td>
</tr>
<tr>
<td>MAR 95 - MAR 96: 5,500K - 7,500K</td>
</tr>
<tr>
<td>MAR 96 - MAR 97: 6,000K - 8,000K</td>
</tr>
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</table>

MAJOR JTC3A CONTRACTUAL EFFORTS FUTURE

<table>
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<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>ANTICIPATED ANNOUNCEMENT DATE</th>
<th>PERIOD OF PERFORMANCE</th>
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<tbody>
<tr>
<td>OPERATE AND MAINTAIN</td>
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<td>MAR 92 - MAR 93</td>
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<tr>
<td>JOINT TEST CENTER EQUIPMENT</td>
<td>4,500K - 6,500K</td>
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<td>MAR 93 - MAR 94</td>
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<td>MAR 94 - MAR 95</td>
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<td>5,500K - 7,500K</td>
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<td>MAR 95 - MAR 96</td>
</tr>
<tr>
<td></td>
<td>6,000K - 8,000K</td>
<td></td>
<td>MAR 96 - MAR 97</td>
</tr>
</tbody>
</table>

#056-H-CV
NATIONWIDE EMERGENCY TELECOMMUNICATIONS SERVICE

FUNCTIONAL DESCRIPTION OF NETS
- SUPPORTS EXECUTIVE AGENCIES DURING NATIONAL EMERGENCIES
- EXPLOITS SURVIVING ASSETS OF PSN
- CIRCUMVENTS LIMITED ROUTING OF PSN
- DISTRIBUTED CALL CONTROLLING MECHANISMS
- MULTIPLE CARRIERS, LOCAL OPERATING COMPANIES
- WILL SUPPORT VOICE AND 2.4KB/S DATA

CONTRACT DATA
CONTRACTING AGENCY: DECCO
POINT OF CONTACT: DON MILLER
LOCATION: SCOTT AFB

PRIME CONTRACT PERIOD:
DEC 90 - DEC 95
PLUS OPTION YEARS

MILESTONES
- RELEASE OF RFP AUG 89
- CONTRACT AWARD DEC 90
- IOC DEC 93
- FOC FY 96

#057-CV
NATIONWIDE EMERGENCY TELECOMMUNICATIONS SERVICE
NATIONAL COMMUNICATIONS SYSTEM

PROGRAM TITLE: NATIONWIDE EMERGENCY TELECOMMUNICATIONS SERVICE

SUMMARY PROJECT DESCRIPTION:

OBTAIN A FLEXIBLE AND WIDELY DISTRIBUTED SERVICE, BASED UPON CURRENT AND PROPOSED PUBLIC SWITCHED NETWORKS, TO SUPPLY A HIGHLY SURVIVABLE SWITCHED VOICE-CHANNEL CONNECTIVITY TO MEET NATIONAL SECURITY EMERGENCY PREPAREDNESS REQUIREMENTS.

SCHEDULE:

FEASIBILITY STUDIES 1981 - 1984
INITIAL SYSTEM ENGINEERING 1983 - 1986
DEMONSTRATION NETWORK 1984 - 1986
SYSTEM SPECIFICATION DEVELOPMENT 1986 - 1988
PRIME RFP ISSUES 1989
PRIME CONTRACT AWARD 1990
IOC 1993
FOC 1996

#957-CV
PURPOSE

TO PROVIDE AN OVERVIEW OF THE NETS PROGRAM
WHAT IS NETS?

- A MAJOR OMNCS INITIATIVE FOR THE IMPROVEMENT OF NSEP TELECOMMUNICATIONS

- A HIGHLY SURVIVABLE, INTERAGENCY VOICE AND LOW-SPEED-DATA COMMUNICATIONS SERVICE

- A DISTRIBUTED SYSTEM OF CALL CONTROLLERS AND OTHER SURVIVABILITY ENHANCEMENTS INSTALLED WITHIN THE PUBLIC SWITCHED NETWORKS
THE ROLE OF NETS IN EMERGENCY COMMUNICATIONS

CALL CONTROLLERS AT VARIOUS NETWORK LOCATIONS

NETS USES SURVIVING FACILITIES TO MAKE CALL COMPLETION POSSIBLE
MINIMAL POST-ATTACK CONNECTIVITY

SURVIVING FACILITIES BUT NO CALL COMPLETION POSSIBLE
NETS BACKGROUND

• Based on survivability studies that showed significant portions of the public networks survive an attack

• OMNCS study in 1981 indicated a network of surviving switches/facilities technically feasible

• Additional studies, requirements definition, engineering, and demonstrations conducted in 1982-1985

• Government (Executive Office of the President) decision to fund NETS on an NCS agency shared basis (1985)

• Government decision to proceed with system/component specifications (1985-86)

• Began structuring for competitive acquisition (1987)
ATTRIBUTES AND LIMITATIONS OF THE PUBLIC SWITCHED NETWORKS

ATTRIBUTES

• UBQUITOUS ACCESS
• SURVIVABILITY
• EASE OF USE
• ROBUSTNESS
• RELIABILITY
• READINESS
• DIVERSITY OF PHYSICAL PATHS

LIMITATIONS

• LIMITED ROUTING ALTERNATIVES AND NOT EXHAUSTIVELY PROBED
• CENTRALIZED SIGNALING
• CONSOLIDATION OF TRAFFIC ON HIGH CAPACITY ROUTES
NETS ATTRIBUTES

- NATIONWIDE COVERAGE
- INTEROPERABILITY WITH CARRIERS AND USER SYSTEMS
- SECURITY FEATURES
- CONSTANT STATE OF READINESS
- PRIORITY SERVICE
- SURVIVABILITY
NETS ENHANCEMENTS TO PUBLIC SWITCHED NETWORK CAPABILITIES

- EXTENSIVELY PROBES AVAILABLE ROUTES

- PROVIDES TRANSMISSION TREATMENT FOR NON-STANDARD ROUTES

- PROVIDES CAPABILITY TO USE NETWORK MANAGEMENT CONTROLS TO IMPROVE HANDLING OF NATIONAL SECURITY EMERGENCY PREPAREDNESS TRAFFIC

- PROVIDES CAPABILITY TO USE AUGMENTATIONS (e.g., INTERCONNECTIONS AND NEW ROUTES)
HOW NETS WORKS

LEGEND
- SECURE NETWORK ACCESS
- TRANSMISSION COMPENSATION
- AUTOMATED OPERATOR PROBES AND CRANKBACK
HOW NETS WORKS

LEGEND

- SECURE NETWORK ACCESS
- TRANSMISSION COMPENSATION
- AUTOMATED OPERATOR PROBES AND CRANKBACK
- CALL COMPLETION WITH SEVERAL CCs IN TANDEM
FEATURES AND FUNCTIONS

- UNIVERSAL NUMBERING PLAN
- TONES AND ANNOUNCEMENTS
- PRIORITY, PRECEDENCE, PREEMPTION
- RETRY CAPABILITY
- PRESET CONNECTIONS
- ACCESS SECURITY
- VOICE AND 2400 B/S DATA SERVICE
FUNCTIONS OF NETS CALL CONTROLLERS

- ROUTING
- SIGNALING
- TRAFFIC MANAGEMENT
- TRANSMISSION TREATMENT
- ACCESS SECURITY
CALL CONTROL MODULE

- CONNECTED TO A HOST SWITCH VIA STANDARD TRUNK INTERFACES
- USES PSN AND SPECIAL NETS ROUTING PROBES
- PROVIDES ACCESS SECURITY FUNCTIONS
- PROVIDES TRANSMISSION COMPENSATION
- STORES CALL RECORDS
SWITCH INTERNAL MODULE

- IMPLEMENTATION OF CALL CONTROLLER FUNCTIONS IN NORTHERN TELECOM DMS 100 FAMILY OF SWITCHES

- PERFORMS ROUTING, SIGNALING, AND SOME NETWORK MANAGEMENT CONTROLS

- DEVELOPED AND DEPLOYED BY THE SWITCH MANUFACTURER

- ADDITION OF SECURITY AND TRANSMISSION TREATMENT HARDWARE UNDER CONSIDERATION

#057-CV
REMOTE USER MODULE

- AN OPTIONAL CUSTOMER PREMISES HARDWARE DEVICE
- PROVIDES TRANSMISSION TREATMENT
- PLANNED FOR LIMITED DISTRIBUTION TO USERS LOCATED A LONG DISTANCE FROM ORIGINATING CALL CONTROLLERS

#057-CV
ACCESS SECURITY DEVICE

- A hand-held device permitting users to access the network
- Acoustic coupling with standard telephones
- Performs the authentication protocol with call controllers
- Permits encryption of call-related information (e.g., number called, precedence)
NETS MAINTENANCE AND ADMINISTRATION CENTER

- AN ADMINISTRATION, OPERATIONS, AND MAINTENANCE CENTER PROVIDING:
  - PLANNING
  - READINESS
  - MAINTENANCE
  - SECURITY

- OPERATED BY CONTRACTOR

- SECURE FACILITY

NOT NEEDED FOR SURVIVABILITY OF NETS OPERATIONS
NETS MAINTENANCE AND ADMINISTRATION CENTER

INTERFACES

- OPERATIONAL TESTING
- READINESS VERIFICATION
- TROUBLE DETECTION AND RESOLUTION

USER
- EXERCISES
- USER ASSISTANCE

NETS PROGRAM MANAGEMENT OFFICE
- POLICY AND MANAGEMENT COORDINATION

NETS MAINTENANCE AND ADMINISTRATION CENTER
- COORDINATION AND PLANNING

INTEREXCHANGE CARRIERS
- ROUTINE SERVICE REQUESTS

LOCAL EXCHANGE CARRIERS

VENDORS
- COMPONENT TESTING
- NETS/NMAC MAINTENANCE
- PROCUREMENT
- SECURITY

GOVERNMENT AGENCIES

NATIONAL COORDINATING CENTER
ACQUISITION STRATEGY

NETS IS PLANNED TO BE ACQUIRED AS A TELECOMMUNICATIONS SERVICE -

• UNDER FULL AND OPEN COMPETITION

• AS ONE MAJOR ACQUISITION

• WITH ONE PRIME CONTRACTOR RESPONSIBLE FOR SYSTEM INTEGRATION AND REQUIRED SUBCONTRACTS

• WITH OMNCS AS PROGRAM MANAGER AND DCA AS ACQUISITION AGENT
# MAJOR CONTRACTUAL EFFORTS
## NATIONAL COMMUNICATIONS SYSTEM
### NETS
#### CURRENT

<table>
<thead>
<tr>
<th>CONTRACT NO.</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
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<tr>
<td>DCA 100-87-C-0015</td>
<td>NETS SYSTEM SPEC. AND ASSOC. TASKS</td>
<td>AT&amp;T</td>
<td>&gt;10M</td>
<td>JAN 86 - APR 88</td>
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<tr>
<td>DCA 100-87-C-0139</td>
<td>NETS APPLICATION TO NTI DMS FAMILY</td>
<td>NTI</td>
<td>&lt;10M</td>
<td>SEP 87 - MAR 90</td>
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<tr>
<td>DCA 100-87-C-0142</td>
<td>US SPRINT SUPPORT TO NETS</td>
<td>US SPRINT</td>
<td>&lt;3M</td>
<td>SEP 87 - MAR 90</td>
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<td></td>
<td>MCI SUPPORT TO NETS</td>
<td>MCI</td>
<td>&lt;3M</td>
<td>FEB 88 - AUG 90</td>
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<td></td>
<td>NETS MAINT. AND CONF. MANAGEMENT</td>
<td>NETWORK SOLUTIONS</td>
<td>&lt;3M</td>
<td>JAN 88 - JAN 91</td>
</tr>
</tbody>
</table>
## MAJOR CONTRACTUAL EFFORTS
### NATIONAL COMMUNICATIONS SYSTEM
#### NETS
##### FUTURE

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>ANTICIPATED RFP DATE</th>
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<tr>
<td>LOCAL EXCHANGE CARRIER SUPPORT TO NETS</td>
<td>&lt;5</td>
<td>JAN 88 (COMPETITIVE)</td>
<td>JUN 88 - JAN 90</td>
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<tr>
<td>ROBUST NON-HIERARCHICAL ROUTING IN AT&amp;T NETWORK</td>
<td>&gt;5M</td>
<td>APR 88 (AT&amp;T)</td>
<td>AUG 88 - SEP 92</td>
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<td>SURVIVABLE SIGNALING IN THE AT&amp;T NETWORK</td>
<td>&gt;10M</td>
<td>APR 88 (AT&amp;T)</td>
<td>SEP 88 - SEP 91</td>
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<td>NETS SETA SUPPORT</td>
<td>&gt;5M</td>
<td>APR 88 (COMPETITIVE)</td>
<td>SEP 88 - SEP 91</td>
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<tr>
<td>NETS PRIME CONTRACTOR</td>
<td>&gt;10M</td>
<td>AUG 89 (COMPETITIVE)</td>
<td>DEC 90 - DEC 95</td>
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</table>
# NETS SCHEDULE & MILESTONES

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<th>ACTIVITY</th>
<th>FISCAL YEAR</th>
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<tbody>
<tr>
<td>FEASIBILITY STUDIES</td>
<td>81 82 83 84 85 86 87 88 89 90 91 92 93 94 95</td>
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<tr>
<td>INITIAL SYSTEM ENGINEERING</td>
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<tr>
<td>DEMONSTRATION NETWORK</td>
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<td>SYSTEM/COMPONENT SPECIFICATIONS</td>
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<tr>
<td>PRIME CONTRACT</td>
<td></td>
</tr>
<tr>
<td>INITIAL OPERATIONAL CAPABILITY</td>
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</tr>
</tbody>
</table>

- RFP
- AWARD
NETS SUMMARY

• NETS WILL MEET THE NATIONAL SECURITY
  EMERGENCY PREPAREDNESS REQUIREMENTS
  OF THE DIVERSE GOVERNMENT USERS

• NETS WILL EMPLOY THE INDUSTRY-WIDE
  CAPABILITIES OF THE PUBLIC SWITCHED
  NETWORKS

• NETS WILL COMPLEMENT EXISTING AND
  PLANNED DEDICATED GOVERNMENT SYSTEMS

• NETS WILL PROVIDE FEATURES THAT ARE
  EASY TO USE IN TIMES OF STRESS
COMMAND CENTER IMPROVEMENT PROGRAM

FUNCTIONAL DESCRIPTION

1. SUPPORTS UNIFIED AND SPECIFIED COMMANDS
2. MAINTAINING STATE OF THE ART COMMAND CENTERS
3. SOURCE OF INFORMATION ON AVAILABILITY OF COMMERCIAL PRODUCTS
4. ANNUAL CONFERENCE, NEWSLETTER, FACTSHEETS, WORKSHOPS, DEMONSTRATIONS, AND TECHNICAL EVALUATIONS

CONTRACT DATA

CONTRACTING AGENCY: DCA
P.O.C.: LTC DOUG BEHNKE
BOOZ-ALLEN & HAMILTON INC.
SEP 86-SEP 89 $5.7M

KEY MILESTONES

OJCS PROGRAM ESTABLISHED 1984
MODEL COMMAND CENTER 1986

#053-B-CV
COMMAND CENTER SYSTEMS PROGRAM

TECHNICAL SUPPORT

SYSTEM ENGINEERING

CCIP/FIELD ENGINEERING

NCA

NMCS

U&S COMMANDS

CCC

AF-1

NSI&SMS

NMCC

ANMCC

NEACP

TRANSCOM

SPACECOM

EUCOM

CENTCOM

MAC

SAC

FORSCOM

SOUTHCOM

SOCOM

PACOM

10%

75%

15%

#053-B-CV
COMMAND CENTER IMPROVEMENT PROGRAM

- PROVIDE TECHNICAL ADVICE AND LEADERSHIP FOR THE MODERNIZATION OF CINC COMMAND CENTERS
  - INFORMATION EXCHANGE
  - ENGINEERING ASSISTANCE
  - RAPID PROTOTYPING
  - TECHNICAL DIRECTION
  - LESSONS LEARNED FOR NMCC

- FOSTER THE EFFICIENT APPLICATION OF RESOURCES TO ACHIEVE A SIGNIFICANTLY IMPROVED CAPABILITY
  - NEW TECHNOLOGY
  - COMMONALITY
  - INTEROPERABILITY
ORIGINS

- PERCEIVED NEED FOR THE TECHNICAL DIALOG BETWEEN U&S COMMAND CENTER OPERATORS RE COMMAND CENTER UPGRADING MATTERS

- JCS TASKED DCA TO PROVIDE A MECHANISM FOR SHARING U&S LESSONS LEARNED, JAN 84
COMMAND CENTER UPGRADES
(PRE-CCIP)

- LARGE INVESTMENT OF RESOURCES
- NO COHERENT FOCUS
- LACK OF METHODOLOGY
- POOR DESIGN
- NO SYNERGISM
- DUPLICATION OF EFFORT
INFORMATION RESOURCES

- CONCEPT
  - GATHER AND DISSEMINATE COMMAND CENTER UPGRADE INFORMATION

- PRODUCTS
  - ANNUAL CCIP CONFERENCE
  - TECHNICAL WORKSHOPS
  - FACTSHEETS
  - "COMMAND CENTER INSIGHT"

- ACCOMPLISHMENTS
  - THREE CONFERENCES
  - ELECTROMAGNETIC PULSE, TEMPEST, VIDEO
    TELECONFERENCING, VIDEO GRAPHICS WORKSHOPS
  - LARGE SCREEN DISPLAY SYSTEM, VIDEO TELECONFERENCING,
    VIDEO GRAPHICS, BIOMETRIC SECURITY FACTSHEETS
  - "COMMAND CENTER INSIGHT" - ISSUED AS NEEDED
  - SIGNAL ARTICAL
COMMAND CENTER DESIGN RESEARCH

● CONCEPT
  - PROVIDE METHODOLOGY FOR UPGRADING COMMAND CENTERS
  - FOSTER STANDARDIZATION AND THE "ILITIES"

● APPROACH
  - COMMAND CENTER UPGRADE PLANNING
  - SYSTEMS ENGINEERING
    -- OPERATIONAL ANALYSIS
    -- FACILITY DESIGN
    -- MISSION SUPPORT ENGINEERING
  - CONFIGURATION MANAGEMENT
  - LOGISTICS

● ACCOMPLISHMENTS
  - COMMAND CENTER DESIGN HANDBOOK
  - LARGE SCREEN DISPLAY GUIDANCE
  - HUMAN ENGINEERED WORKSTATION CONCEPTS
CCIP TIGER TEAM

● CONCEPT
  - PROVIDE ENGINEERING GUIDANCE/ADVICE
  - MAINTAIN MULTIDISCIPLINARY TEAM OF COMMAND CENTER DESIGN EXPERTS

● TEAM COMPOSITION
  - DCA
  - US ARMY CONSTRUCTION ENGINEERING RESEARCH LAB
  - ARMSTRONG AEROSPACE MEDICAL RESEARCH LAB
  - NATIONAL COMPUTER SECURITY CENTER
  - GENERAL SUPPORT CONTRACTOR
  - USER

● ACCOMPLISHMENTS
  - VISITS TO EUCOM, SOUTHCOM, CENTCOM, USFK, USSPACECOM, ETC.
  - AVOIDANCE OF DESIGN DEFICIENCIES
TECHNOLOGY DEMONSTRATION/PROTOTYPING

○ CONCEPT
  - EXPLOIT NEW TECHNOLOGY
  - APPLY TECHNOLOGY WHERE IT MAKES SENSE

○ APPROACH
  - EVALUATE SPECIFIC TECHNOLOGIES
  - OBSERVE THE OPERATIONAL CHARACTERISTICS
  - PROTOTYPE PROMISING TECHNOLOGIES
  - TRANSITION TO COMMAND CENTERS

○ ACCOMPLISHMENTS
  - LARGE SCREEN DISPLAY SYSTEMS
  - HUMAN ENGINEERED WORKSTATION
  - SOUTHCOM DATA DISSEMINATION SYSTEM
  - VIDEO TELECONFERENCING SYSTEMS
  - BIOMETRIC SECURITY DEVICES
PAST PROTOTYPING SUCCESSES

- LASER PROJECTORS
- HUMAN ENGINEERED WORKSTATIONS
- USSOUTHCOM DATA DISSEMINATION SYSTEM
- FIBER OPTICS TELEPHONE
- COMMAND CENTER VIDEO MAPPING SYSTEM
- COMMAND CENTER DESIGN HANDBOOK
MOTIVATION

"WE ARE NOT SURE WHAT THE REQUIREMENTS ARE BUT WE NEED IT BUILT FAST."

"THIS IS NOT IT BUT I WILL KNOW IT WHEN I SEE IT."

"WHAT DO YOU MEAN THE ARCHITECTURE WILL NOT SUPPORT THIS NEW TASK?"

"THE SYSTEM WAS FIELDED BUT THE USERS CAN NOT OR WILL NOT USE IT."
CCIP ACTIVITIES/INITIATIVES

- TIGER TEAM VISIT TO USEUCOM (JAN 88)
- CENTCOM/SOCOM COMMAND CENTER UPGRADES (ON-GOING)
- MAC MODEL COMMAND CENTER
- DOD MULTI-LEVEL SECURITY Prototype
- CCIP CONFERENCE (MAY 88)
- MODULAR BUILDING CONCEPT
- GENERIC INFORMATION SYSTEMS MODULES
- COMMAND CENTER DESIGN HANDBOOK/EXPERT SYSTEMS CONVERSION
- EXTEND BEYOND FIXED COMMAND CENTERS
- EXPAND CCEL TO LAB/TEST BED
CCIP ISSUES

- CINC C2 INITIATIVES
- GOOD AND BAD

- EVOLUTIONARY ACQUISITION
- NEED C/C ADVOCATE FOR RAPID PROTOTYPING PROCESS

- RESOURCES TO WORK ISSUES
- SPATE OF EMERGING ISSUES

- DROUGHT OF R & D DOLLARS
DEVELOPMENTAL ENGINEERING

• MISSION
  - APPLY EXISTING TECHNOLOGY THAT MAY HAVE HIGH PAYOFF AT AFFORDABLE COST TO SATISFY CURRENT OPERATIONAL NEEDS

  AND

  - DEVELOP ENGINEERING PROTOTYPES TO OBTAIN SERVICE AND CINC ACCEPTANCE TO EXPEDITE THE FIELDING OF NEW SYSTEMS THRU EVOLUTIONARY DEVELOPMENT

• AREAS OF INTEREST
  - METEOR BURST COMMUNICATIONS
  - RECONSTITUTED VLF/LF
  - HARDENED ANTENNA TECHNOLOGY
  - ADAPTIVE HF (STRESSCOM) CONNECTIVITY EVALUATION
  - MULTI-MEDIA RELAY
METEOR BURST COMMUNICATIONS (MBC)

FUNCTIONAL DESCRIPTION OF SYSTEM

Supports
- WHO: DoD
- WHAT MISSION: RECONSTITUTION, REMOTE SENSING
- HOW: PROVIDE COST EFFECTIVE METEOR BURST SYSTEMS
- WHY: LOW COST, LOW PROBABILITY OF INTERCEPT, SURVIVABILITY
- PRODUCTS: INTEROPERABILITY STANDARDS FAMILY OF EQUIPMENT

CONTRACT DATA

N/A: EFFORT CURRENTLY ACCOMPLISHED WITH IN-HOUSE RESOURCES

MILESTONES

INITIAL CAPABILITY RECOMMENDATIONS - AUG 87

FAMILY OF EQUIPMENT - JUN 88

ADVANCED CAPABILITY RECOMMENDATIONS - SEPT 89

#053-E-CV
METEOR BURST COMMUNICATIONS
(VERY HIGH FREQUENCY)

- $10^{12}$ usable trails per day
- Enter Earth's atmosphere
  - Max: Sunrise, Aug.
  - Min: Sunset, Feb.
- 0.5 sec average duration

1200 MI MAX

180 MI
F-REGION
90 MI
E-REGION
60 MI
D-REGION
30 MI
METEOR BURST SYSTEMS

EARLY SYSTEMS
- CANADIAN ——— JANET
- SHAPE TECHNICAL CENTER ——— COMET
- ALASKAN METEOR BURST COMMUNICATIONS SYSTEM

CURRENT SYSTEMS
- DEPARTMENT OF AGRICULTURE SNOWTELEMETRY NETWORK
- ALASKAN AIR COMMAND
- 25TH AIR DIVISION
WHY METEOR BURST COMMUNICATIONS?

- Improved recovery time in disturbed environment
- Improved low probability of interception
- Not dependent on vulnerable satellites
- Extremely predictable propagation
- Highly cost-effective for low-volume traffic
- Applications of disadvantaged users
- Best choice, last-ditch backup in multimedia systems
- Low power drain allows unattended solar-powered remotes
- Full platform application - manpack to airborne
POTENTIAL MISSIONS

- FORCE DIRECTION AND REPORTING
- RECONSTITUTION
- ORDER WIRES
- CONTINUITY OF COMMAND COMMUNICATIONS
- EMERGENCY ACTION MESSAGE BACKUP
METEOR BURST COMMUNICATIONS

MAJOR SYSTEM COMPONENTS

A
MASTER STATION

B
COMMUNICATIONS REMOTE STATION

C
REMOTE SENSING TERMINAL

D
RECEIVE ONLY TERMINAL

E
RELAY

TYPICAL NETWORKS

REMOTE SENSING

ORDER WIRE

WIDE AREA WARNING

ALL PATHS 300 - 800 MILES

#053-E-CV
COMMON MODE CAPABILITY

- PROVIDES CONNECTIVITY BETWEEN COMMUNITIES
- ALLOWS EQUIPMENT INTERCHANGE/REPLACEMENT
- PERMITS USE OF DIFFERENT DEVELOPERS
OJCS DIRECTION

- DEVELOP A SET OF INTEROPERABILITY STANDARDS USING A TWO PHASE APPROACH
  - INITIAL CAPABILITY
  - ADVANCED CAPABILITY

- IDENTIFY A FAMILY OF EQUIPMENT FEATURING A LOW COST TERMINAL
METEOR BURST COMMUNICATIONS
INTEROPERABILITY STANDARDS

INITIAL CAPABILITY

MATING FUNCTIONS REQUIRED FOR INTEROPERABILITY
# METEOR BURST COMMUNICATIONS STANDARDS

## INITIAL INTEROPERABILITY STANDARD RECOMMENDATIONS

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>COMMUNICATION</th>
<th>REMOTE SENSING</th>
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<tr>
<td>POLARIZATION</td>
<td>HORIZONTAL</td>
<td>HORIZONTAL</td>
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<td>FREQUENCY</td>
<td>30-54 OR 30-88 (5 kHz STEPS)</td>
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<td>1 PPM, MSTR, 2 PPM RMT</td>
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<td>MODULATION</td>
<td>DBPSK</td>
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<td>BIT RATE</td>
<td>8 KBPS</td>
<td>4 KBPS</td>
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<td>ERROR CONTROL</td>
<td>ARQ, GO-BACK-N</td>
<td>ARQ, STOP-AND-WAIT</td>
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<td>ANSI CRC (16)</td>
<td>ANSI CRC (16)</td>
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<td>LINK PROTOCOL</td>
<td>HALF DUPLEX, FULL DUPLEX, BROADCAST</td>
<td>POLLING</td>
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<td>NETWORK PROTOCOL</td>
<td>LINKED STARS, TIME-TO-LIVE, PRIORITY</td>
<td>SINGLE STAR</td>
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<td>COMSEC</td>
<td>KG 84 NEAR TERM</td>
<td>N/A</td>
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<td>INPUT/OUTPUT INTERFACE</td>
<td>RS 232 SERIAL 300 BAUD, ASCII</td>
<td>SENSOR ANALOG/DIGITAL</td>
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<td>INTERFACE</td>
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#053-E-CV
METEOR BURST COMMUNICATIONS
CHALLENGE TO INDUSTRY

- PROVIDE INPUT TO STANDARDS DEVELOPMENT
- PROVIDE ADDITIONAL BREAKPOINTS FOR LOW COST TERMINALS
- BE A SOURCE FOR AFFORDABLE EMERGING TECHNOLOGIES
- HELP AVOID "GOLD PLATING"
- PROVIDE SOLUTIONS FOR ENHANCING CONNECTIVITY IN STRESSED ENVIRONMENTS
  - MODULATION
  - DATA RATES
  - FORWARD ERROR CORRECTION
  - NETWORKING
  - EMBEDDED COMSEC
PROGRAM SUMMARY

BY END OF 1988:

- SERVICES APPROVED INITIAL CAPABILITY STANDARD

- DEFINITION OF A MISSION ORIENTED FAMILY OF EQUIPMENT

- CONTINUING EFFORTS TO DEFINE AN ADVANCED CAPABILITY STANDARD
MSO MISSION AND FUNCTIONS

MISSION:

- ESTABLISH THE DoD-WIDE MILSATCOM ARCHITECTURE
- SERVE AS PRINCIPAL ADVISOR TO DIRECTOR DCA, ASD (C³I), AND JCS (J6) ON DoD SATELLITE COMMUNICATIONS

FUNCTIONS:

- PERFORM USER MISSION AND REQUIREMENTS ANALYSES
- ANALYZE THREAT PROJECTIONS
- DEVELOP SYSTEM TRANSITION PLANS
- RECOMMEND FUNDING AND POLICY GUIDELINES
- PROVIDE TECHNOLOGY ASSESSMENTS
MILSATCOM
USER COMMUNITY AND REQUIREMENTS

VERY HIGH CAPACITY
ANTI-JAM (SELECTIVE)
SCINTILLATION PROTECTION (SELECTIVE)

HIGH CAPACITY
ANTI-JAM (SELECTIVE)

GROUND MOBILE FORCES

INTELLIGENCE RELAY

WWMCCS

LOW CAPACITY
HIGH ANTI-JAM
PHYSICAL SURVIVABILITY
SCINTILLATION PROTECTION

HIGH CAPACITY
ANTI-JAM (SELECTIVE)

DCS & SPECIAL SUPPORT

NUCLEAR CAPABLE FORCES

LOW CAPACITY
HIGH ANTI-JAM
PHYSICAL SURVIVABILITY
SCINTILLATION PROTECTION
LPI

SURVIVING & ENDURING USERS

LOW CAPACITY
ANTI-JAM
LPI
SCINTILLATION PROTECTION
PHYSICAL SURVIVABILITY (TRANS & POST ATTACK)

FLEET OPERATIONS

HIGH VOLUME (LOW CAPACITY)
ANTI-JAM (SELECTIVE)

AIR OPERATIONS

HIGH VOLUME (LOW CAPACITY)
ANTI-JAM (SELECTIVE)

#053-F-CV
A COHERENT MILSATCOM ARCHITECTURE
FOR THE 1990'S

LOW DATA RATE (STRESSED)
AFSATCOM (UHF & SHF)
COMMERCIAL SATCOM (C & Ku)
HIGH DATA RATE (UNSTRESSED)

UHF FOLLOW-ON (UHF)

LOW-MEDIUM DATA RATE (UNSTRESSED)

MILSATCOM ARCHITECTURE

POST DSCS III (SHF & EHF)

MEDIUM-HIGH DATA RATE (UNSTRESSED)
MEDIUM DATA RATE (STRESSED)

MILSTAR (EHF)

LOW-MEDIUM DATA RATE (STRESSED)
PHYSICAL SURVIVABILITY
FUTURE REQUIREMENT TRENDS

USER/SYSTEM REQUIREMENTS

- Very high data rates
- Physical survivability - selective
- Large number of small terminals
- World-wide connectivity - without ground relays
- Anti-jam - all users
- Nuclear scintillation - most users
- LPE - selective

#053-F-CV
TECHNOLOGY CHALLENGE

VERY HIGH DATA RATES
ANTI-JAM & LPE PROTECTION
AFFORDABLE SMALL TERMINALS
NUCLEAR SCINTILLATION
WORLD-WIDE CONNECTIVITY (CROSSLINKS)
PHYSICAL SURVIVABILITY

HIGHER FREQUENCY

PROLIFERATION OF SMALL PACKAGES

#053-F-CV
A CANDIDATE 2010 MILSATCOM SYSTEM

- LARGE NUMBER OF SMALL SATELLITES IN LEO ORBIT
- SMALL NUMBER OF LARGE SATELLITES IN GEO/HEO ORBIT
- CROSSLINKS (60GHz/LASER) BETWEEN LEO AND GEO/HEO SATELLITES
- USER TERMINALS ARE SMALL (UHF OR EHF)
- HIGH ANTI-JAM AND PHYSICAL SURVIVABILITY
SUMMARY

- CONTINUING NEED FOR MILSATCOM SYSTEMS IN THE FUTURE (BEYOND 2000)
  - GROWTH IN USER REQUIREMENT
  - THREAT INCREASE

- IMPLEMENTATION OF ADVANCED MILSATCOM CONCEPTS WILL REQUIRE DEVELOPMENT AND USE OF NEW TECHNOLOGIES
  - SPACECRAFT
  - TERMINALS
21ST CENTURY DCS ARCHITECTURE


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<thead>
<tr>
<th>SERVICES</th>
<th>SUBSYSTEMS</th>
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<td>VOICE</td>
<td>SWITCHING</td>
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<td>DATA</td>
<td>TRANSMISSION</td>
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<tr>
<td>VIDEO</td>
<td>TERMINALS</td>
</tr>
<tr>
<td>MESSAGE</td>
<td>CONTROL</td>
</tr>
</tbody>
</table>

FUNCTIONAL DESCRIPTION OF SYSTEM

SUPPORTS:
- WHO: DOD COMMON USER COMMUNITY
- WHAT MSN: COMMUNICATIONS
- HOW: TRANSMISSION & SWITCHING
- WHY: ECONOMY, SURVIVABILITY, SECURITY
- PRODUCTS: 1995 DCS ARCHITECTURE, 2005 GOAL DCS ARCHITECTURE, DCS TRANSITION STRATEGY
- DELIVERABLES: TECHNICAL REPORTS

CONTRACT DATA

CONTRACTING AGENCY: DCA, WASH, D.C.
DCA POINT OF CONTACT: DR. SCHER, C4S/A700
KEY LOCATIONS: ARLINGTON, VA
CONTRACTOR: BOOZE-ALLEN HAMILTON

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<th>CONTRACT PERIODS</th>
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<tr>
<td>DEC 87 - DEC 88</td>
<td>$1 M</td>
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<td>DEC 88 - DEC 89</td>
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<tr>
<td>DEC 89 - DEC 90</td>
<td>$1 M</td>
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</tbody>
</table>

KEY MILESTONES:

- CONTRACT AWARD - DEC 1987
- 1995 DCS ARCHITECTURE REPORT - DEC 1988
- 2005 DCS ARCHITECTURE REPORT - DEC 1989
- DCS TRANSITION STRATEGY - DEC 1990

#058-C-CV
# THE DCS ARCHITECTURAL SPACE

<table>
<thead>
<tr>
<th>REIGNS OF THE WORLD</th>
<th>VOICE</th>
<th>DATA</th>
<th>MESSAGE</th>
<th>WIDEBAND</th>
<th>VIDEO CONFERENCE</th>
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<tr>
<td>CONUS</td>
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<td>SECURITY</td>
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<td>FEATURES</td>
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<td>TRANSAN</td>
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<td>CAPACITY</td>
<td>SECURITY</td>
<td>COST</td>
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</table>
NEAR-TERM ARCHITECTURAL URGENCIES
(OUR ARCHITECTURAL PROGRAM IS LATE!!)

SYSTEM DRIVEN

- DEFENSE DATA NETWORK CAPACITY EXPANSION
- CONUS MILNET NUCLEAR SURVIVABILITY
- FORMAL MESSAGE SYSTEM
- NATO TRANSMISSION RATIONALIZATION

OPERATIONALLY DRIVEN

- SURVIVABILITY (EUROPE, KOREA, TRANSOCEANIC)
- ECONOMIES (DEFENSE DATA NETWORK PORT CHARGES)
MID-TERM ARCHITECTURAL ISSUES
(WE SHOULD START NOW!!)

SYSTEM DRIVEN
- DEFENSE SWITCHED NETWORK WESTHEM FUNCTIONAL SPECIFICATION
- SECURE VOICE TERMINAL EVOLUTION
- WIDEBAND SOLUTIONS
- MILSATCOM UTILIZATION

OPERATIONALLY DRIVEN
- SOUTHWEST ASIA SURVIVABILITY
- ECONOMIES (DEDICATED CIRCUITS, O&M COSTS)
SOME MAJOR UNCERTAINTIES

• RATE OF PENETRATION OF MARKETPLACE BY THE INTEGRATED SERVICES DIGITAL NETWORK

• DISCONTENT WITH, AND PROCUREMENT RATE OF, STU-III SECURE VOICE TERMINALS

• RATE OF WIDEBAND INTELLIGENCE EXPLOSION

• RATE OF AVAILABILITY OF MULTI-LEVEL SECURITY
FINAL MESSAGE

● COMMERCIAL LONG-HAUL CARRIERS AND INTEGRATING CONTRACTORS
  - INFORM US OF YOUR FUTURE PLANS
  - LEARN ABOUT DCS NEEDS

● HARDWARE DEVELOPERS
  - ADVISE US OF YOUR PRODUCTS
  - SEARCH FOR A MARKET NICHE

● STUDY AND ANALYSIS CONTRACTORS
  - POSTURE YOURSELVES FOR OUR 1990 RECOMPETITION
  - ADVISE US OF YOUR CAPABILITIES BEFORE THE ACQUISITION PROCESS COMMENCES
# MAJOR CONTRACTUAL EFFORTS (CURRENT)

<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
<th>DESCRIPTION</th>
<th>INCUMBENT</th>
<th>VALUE</th>
<th>PERIOD OF PERFORMANCE</th>
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<tbody>
<tr>
<td>DCA</td>
<td>DEFENSE-WIDE SYSTEMS SETA (1ST YEAR)</td>
<td>BAH</td>
<td>$1.2M</td>
<td>DEC 87 - DEC 88</td>
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<td><strong>TASKS:</strong></td>
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<tr>
<td></td>
<td>- 1995 DCS ARCHITECTURE</td>
<td></td>
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<tr>
<td></td>
<td>- CONUS DDN SURVIVABILITY</td>
<td></td>
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<tr>
<td></td>
<td>- MESSAGE HANDLING SERVICES</td>
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<tr>
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<td>DEFENSE-WIDE SYSTEMS SETA (2ND YEAR)</td>
<td>BAH</td>
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<td>DEFENSE-WIDE SYSTEMS SETA (3RD YEAR)</td>
<td>BAH</td>
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<td>DEC 89 - DEC 90</td>
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</table>
# Major Contractual Efforts (Future)

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>Anticipated Announcement Date</th>
<th>Period of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defense-Wide Systems Support</td>
<td>$3 - $4M</td>
<td>Fall. 1989</td>
<td>Dec 90 - Dec 93</td>
</tr>
</tbody>
</table>

**Tasks:**

- Wideband Communications Architecture
- World-Wide Secure Communications Architecture
- DCS Architecture and Transition Refinement
# USTRANSCOM C3 ARCHITECTURE

<table>
<thead>
<tr>
<th>THE USTRANSCOM C3I ARCHITECTURE PLANS THE FUTURE C3I SYSTEM FOR DEFENSE TRANSPORTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USTRANSCOM</strong></td>
</tr>
<tr>
<td>MILITARY SEALIFT COMMAND</td>
</tr>
<tr>
<td>MILITARY TRANSPORTATION MANAGEMENT CENTER</td>
</tr>
<tr>
<td>ESTABLISHED 15 APRIL 1987</td>
</tr>
<tr>
<td>CONSOLIDATED AIR, LAND, AND SEA TRANSPORTATION UNDER ONE DOD MANAGER</td>
</tr>
</tbody>
</table>

## SUPPORTS -
- WHO: USTRANSCOM/J6
- WHAT MSN: DOD MOBILIZATION/ TRANSPORTATION
- HOW: AIR, LAND, AND SEA
- WHY: IMPROVE THE MOBILITY C3 SYSTEM
- PRODUCTS: C3 ARCHITECTURE, C3 EVALUATION
- DELIVERABLES: TECHNICAL REPORTS

## CONTRACT DATA

<table>
<thead>
<tr>
<th>CONTRACTING AGENCY: DCA, WASH, DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>POINT OF CONTACT: DR. SCHER, C4S/A700</td>
</tr>
<tr>
<td>KEY LOCATIONS: SCOTT AFB, IL AND ARLINGTON, VA</td>
</tr>
<tr>
<td>FUNDING PROBABILITY: 50%</td>
</tr>
<tr>
<td>CONTRACT PERIOD(S): OCT 88 - SEP 91, OCT 91 - SEP 93</td>
</tr>
<tr>
<td>DOLLAR VALUE: $6.0M</td>
</tr>
</tbody>
</table>

## KEY MILESTONES (RFI, RFP, ETC.)

- RFP RELEASE APR 88
- CONTRACT AWARD OCT 88

#058-C-CV
USTRANSCOM AND THE WORLD AROUND IT

USTRANSCOM

- NATIONAL COMMAND AUTHORITY
- JOINT CHIEFS OF STAFF
- SERVICES
- MAJOR COMMANDS
- UNITS
- LOGISTIC CENTERS
- UNIFIED AND SPECIFIED COMMANDS
- SUPPORTING COMMANDS
- COMPONENT COMMANDS

MSC → JDA → MTMC → MAC (JDA)
EXECUTION MONITORING INFORMATION FLOW
REQUISITIONED MATERIEL RESUPPLY INFORMATION FLOW

WHOLESALE INVENTORY CONTROL POINT

WHOLESALE STORAGE ACTIVITY

US MAIL, COMMERCIAL, QUICKTRANS (NAVY) LOGAIR (AIR FORCE) MTMC

CONUS UNIT SHORE INSTALLATION, OR BASE

OCONUS UNIT SHORE INSTALLATION, OR BASE

JDA

SEQUENCE:

CLEARANCE AUTHORITY

POE

POD

ALCC

TAMCA

DAS

RECEIPT ACKNOWLEDGE

AIR FORCE

UNIT, SHORE INSTALLATION, OR BASE

ARMY NAVY MARINE CORPS

REJECTION

REQUISITION

STATUS

REQUISITION

STATUS

CRISIS WARTIME VALIDATION

MOVEMENT REQUIREMENT (TCMD)

MOVEMENT REQUIREMENT (TCMD)

MATERIAL

COMMERCIAL, QUICKTRANS LOGAIR, MTMC

SURFACE DEPARTURE MESSAGE MANIFEST

DELIVERY COORDINATION

TCMD

TCMD

TCMD
## PLANNED SOFTWARE SYSTEMS SUPPORTING MOBILITY C3

### Function: Establish Requirement

<table>
<thead>
<tr>
<th>Task</th>
<th>UNIT PERSONNEL</th>
<th>UNIT MATERIAL</th>
<th>LIFT</th>
<th>UNIT MATERIAL</th>
<th>LIFT MANAGEMENT</th>
<th>OPERATIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPLOYMENT - PLANNING</td>
<td>JOESES</td>
<td>COMPASS</td>
<td>JOESES</td>
<td>AULES</td>
<td>EARLO</td>
<td>EARLO</td>
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<td>ROPC</td>
<td>MODES</td>
<td>ROPC</td>
<td>MBRSCOPE</td>
<td>EARLO</td>
<td>DAMS-E</td>
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<tr>
<td></td>
<td>MODES</td>
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<td>SIMS</td>
<td>DAMS-E</td>
<td>DAMS-E</td>
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<tr>
<td></td>
<td>COMPASS AUEL</td>
<td>SEMS</td>
<td>COMPASS AUEL</td>
<td>SEMS</td>
<td>EARLO</td>
<td>TAMS</td>
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</table>

### Function: Execution

<table>
<thead>
<tr>
<th>Task</th>
<th>UNIT PERSONNEL</th>
<th>UNIT MATERIAL</th>
<th>LIFT</th>
<th>UNIT MATERIAL</th>
<th>LIFT MANAGEMENT</th>
<th>OPERATIONAL</th>
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<tbody>
<tr>
<td>SUSTAINMENT - MATERIEL</td>
<td>JOESES</td>
<td>MOBSCOPE</td>
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<td>MBRSCOPE</td>
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<td>DAMS-E</td>
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<td>SEMS</td>
<td>EARLO</td>
<td>DAMS-E</td>
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<tr>
<td></td>
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<td>AUEL</td>
<td>COMPASS</td>
<td>AUEL</td>
<td>EARLO</td>
<td>DAMS-E</td>
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</table>

### Function: Personnel

<table>
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<tr>
<th>Task</th>
<th>UNIT PERSONNEL</th>
<th>UNIT MATERIAL</th>
<th>LIFT</th>
<th>UNIT MATERIAL</th>
<th>LIFT MANAGEMENT</th>
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<td>PERSONNEL</td>
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<td>COMPES</td>
<td>SIMS</td>
<td>COMPES</td>
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<td>EARLO</td>
<td>DAMS-E</td>
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<td>SIDERS</td>
<td>EARLO</td>
<td>SIDERS</td>
<td>EARLO</td>
<td>TAMS</td>
<td>TAMS</td>
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**Legend**
- NEW SYSTEM
- NOT APPLICABLE

*ONLY IF PROCESSED THROUGH AN APOD*
SOME MOBILITY C3 ISSUES IN PRIORITY ORDER

1. THE MOBILITY C3 SYSTEM NEEDS TO PROVIDE FASTER AND/OR MORE FLEXIBLE COA DEVELOPMENT AND/OR EXECUTION PLANNING.

2. THE MOBILITY C3 SYSTEM NEEDS TO PROVIDE TIMELY, COMPLETE, AND ACCURATE INFORMATION ON THE LOCATION, STATUS, AND AVAILABILITY OF LIFT RESOURCES (AIR, LAND, AND OCEAN).

3. THE MOBILITY C3 SYSTEM LACKS FLEXIBILITY. IN PARTICULAR, IT LACKS THE ABILITY TO STOP IN THE MIDDLE OF DEPLOYMENT EXECUTION AND CHANGE DIRECTION.
ISSUE NUMBER 1

THE MOBILITY C3 SYSTEM NEEDS TO PROVIDE FASTER AND/OR MORE FLEXIBLE COA DEVELOPMENT AND/OR EXECUTION PLANNING

COURSE OF ACTION DEVELOPMENT ACTIVITY NETWORK
<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
<th>DESCRIPTION</th>
<th>VALUE</th>
<th>PERFORMANCE</th>
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<tbody>
<tr>
<td>N/A</td>
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## MAJOR USTRANSCOM CONTRACTUAL EFFORT (FUTURE)

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE RANGE</th>
<th>ANTICIPATED ANNOUNCEMENT DATE</th>
<th>PERIOD OF PERFORMANCE</th>
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<tbody>
<tr>
<td>C3I ARCHITECTURE</td>
<td>$2M - $10M</td>
<td>APR 88</td>
<td>OCT 88 - SEP 91</td>
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<tr>
<td>- REQUIREMENTS DERIVATION</td>
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<td>- ARCHITECTURE DEVELOPMENT/ANALYSIS</td>
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<tr>
<td>- IMPLEMENTATION PLAN/ACQUISITION STRATEGY</td>
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<tr>
<td>- SYSTEM INTEGRATION/TRANSITION PLANNING</td>
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</tr>
</tbody>
</table>

- C3I MASTER PLAN
  - ADP, COMMUNICATIONS, COMMAND CENTERS, INTELLIGENCE

- C3 PERFORMANCE ASSESSMENT REPORT

- ASSESSMENT/EVALUATION ACTIVITY
FINAL MESSAGE

- DCA IS LOOKING FOR A NEW CONTRACTOR WITH SPECIALIZED ABILITIES

1. FAMILIARITY WITH THE DEPLOYMENT/RESUPPLY COMMUNITY
   - JOINT DEPLOYMENT AGENCY
   - JOINT CHIEFS OF STAFF
   - TRANSPORTATION OPERATING AGENCIES
   - UNIFIED & SPECIFIED COMMANDS
   - SERVICES
   - LOGISTICS AGENCIES
   - INTELLIGENCE

2. FAMILIARITY WITH MOBILITY C3
   - COMMUNICATIONS
   - COMMAND FACILITIES
   - COMPUTER/SOFTWARE SYSTEMS

3. ABILITY TO DO QUANTITATIVE OPERATIONS ANALYSIS ON IMPACT OF C3 IMPROVEMENTS ON EFFECTIVENESS OF MOBILITY OPERATIONS

4. ABILITY TO DEVELOP AND APPLY EMPIRICAL MEASUREMENTS TO THE MOBILITY C3 SYSTEM AND MOBILITY OPERATIONS

- THE COMPETITION STARTS SOON