EXHIBIT R-2, FY2001 RDT&E,N Budget Item Justification   DATE: February 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0305188N   PROJECT NUMBER: X2456
                       PROGRAM ELEMENT TITLE: Joint (C4ISR) Battle Center

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1999 ACTUAL	FY 2000 ACTUAL	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X2456 Joint (C4ISR) Battle Center	5,143	8,081	7,795	8,396	8,603	8,783	9,090	CONT.	CONT.
TOTAL	5,143	8,081	7,795	8,396	8,603	8,783	9,090	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Joint Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Battle Center (JBC) is the Commander In Chief, United States Atlantic Command (CINCUSACOM) and Chairman, Joint Chiefs of Staff (CJCS) facility for warfighter exploration and assessment of C4ISR capabilities. The Center provides the combatant commands, at the Joint Task Force (JTF) level, with a near term joint assessment and experimental environment for the warfighter and technologist in support of Joint Vision 2010 (JV2010). It serves as the technical analysis and assessment agency for the Joint Requirement Operating Council (JROC) in determining C4ISR system "value-added" PRIOR to introduction to the CINCs and in advance of system fielding in operational environments. The intent is for the JBC to be a forcing function for joint synchronization and a means to foster rapid, near-term insertion of C4ISR technology.   The mission of the JBC is to provide rapid assessment of required C4ISR interoperability and warfighter utility, join emerging C4ISR technology with new operational doctrine, and result in fielding C4ISR capabilities that meet the joint warfighter's needs.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it provides rapid assessment of required C4ISR interoperability, as well as rapid insertion of emerging technology, with new operational doctrine that will result in fielding C4ISR capabilities that meet the joint warfighter's need.

Program Budget Decision (PBD) 710, Defense Reform Initiative, moved the JBC from the Joint Staff to CINCUSACOM with funding moved to the Department of Navy, as Executive Agent for CINCUSACOM, effective FY 99. FY 97 and FY 98 funds are reflected in the Joint Staff RDT&E,DW budget submission.

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B.   (U) PROGRAM CHANGE SUMMARY:

     FY 1999: SBIR/STTR Transfer (-124K), LOCO-GPSI Reprogramming (-45K), Sec 8090 Inflation (-24), FY
     1999 Funds Reprogrammed outside of SPAWAR (-1).

     FY 2000: Congressional Reduction (-44K), $105K Portion of extramural program is reserved for Small
     Business Innovation Research assessment in accordance with 15 USC 638.

     FY 2001: SSP Contract Reduction (-8), Low Expenditure Rate (-413), NWCF Rates - NCCOSC (-2), ICC
     0614 SPAWAR Program Adjustment (+1), Non-Pay Purchase Inflation (-66), Active Navy Ops (-20).

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

  1. (U) FY 1999 ACCOMPLISHMENTS:

  • (U) ($1,450K) Follow-on JWID. Upon completion and evaluation of each theme year JWID the CINC's
    and CJTF's involved identify systems which demonstrated warfighting utility but which require
    further refinement and follow-on assessment. These technologies are forwarded to the JBC for
    inclusion in the exploitation fiscal year plan. Enhancements and follow-on assessments were
    conducted by JBC and programmatic recommendations were prepared.

  • (U) ($1,100K) Asynchronous Transfer Mode (ATM) Operational Demonstration. ATM had taken
    advantage of significant advances in switching technology to ensure CJTF seamless communications
    across all forces. Bandwidth restrictions severely limit successful JTF operations. ATM offers a
    potential solution but there is currently no DOD or Industry standard. This effort addressed a
    lack of commonality among the services in their communications approaches and addresses
    synchronization disconnects relating to fielding schedules which affect the required CINC/JTF
    capability. Each service is currently selecting their "vendor of choice" which will likely lead
    to non-interoperability as well as increased cost and complexity in implementation. JBC
    continued to document/validate interoperability problems, assess ability to support tactical JTF
    down to actual ground forces and perform an operational demonstration.

  • (U) ($1,007K) Link 16 Operational Demonstration. Demonstrated Link-16/VMF Digitized Battle
    Space interoperability through proof of concept prototype development to permit portable exchange

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of tactical information to/from Link-16 and VMF networks. This was an advanced concept technology demonstration (ACTD).

- (U) ($1,586K) Federated Battle Lab (FBL). The FBL is a consortium of Joint and Service battle centers/laboratories formed to promote solutions to operational problems in CJTF environments. The JBC is recognized as the joint FBL hub by CINC's, services, agencies and CJTF's. The JBC, as chairman of the consortium, coordinated efforts to capitalize on lessons learned in order to continue these effective and successful collaborative experiments in future years.

2. (U) FY 2000 PLAN:

- (U) ($1,505K) Follow-on JWID. Upon completion and evaluation of each theme year JWID the CINC's and CJTF's involved identify systems which demonstrated warfighting utility but which require further refinement and follow-on assessment. These technologies are forwarded to the JBC for inclusion in the exploitation fiscal year plan. Enhancements and follow-on assessments are conducted by JBC and programmatic recommendations are prepared.

- (U) ($1,842K) Federated Battle Lab (FBL). The FBL is a consortium of Joint and Service battle centers/laboratories formed to promote solutions to operational problems in CJTF environments. The JBC is recognized as the joint FBL hub by CINC's, services, agencies and CJTF's. The JBC, as chairman of the consortium, will coordinate efforts to capitalize on lessons learned in order to continue these effective and successful collaborative experiments in future years.

- (U) ($1,390K) Intelligence, Surveillance and Reconnaisance (ISR). The JBC, as written into the Joint Intelligence Interoperability Board (JIIB), will perform system integration and functional assessments of the identified intelligence systems, including shared segments, as appropriate. JBC will establish and maintain a JTF Integration Facility (JTFIF) to include current and BETA baselines of all the major Service ISR systems to support on-going maturity, operational utility, and jointness assessments of ISR systems.

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- (U) ($1,251K) Information Assurance (IA). JBC will continue to be a key player in IA Tools integration with network management and for emerging network IA technologies. JBC will incorporate red-teaming into Joint exercises and FBL efforts in order to facilitate JBC assessments of new C4ISR IA technologies. JBC will also be looking at Information Operations Planning Tools that provide analysis, correlation, and fusion capabilities as well as greater visualization, rehearsal, and wargaming/situational analysis capabilities.

- (U) ($637K) MILSATCOM. JBC will be a host site for the Global Broadcast System (GBS) Test Bed/GBS Receive Suite. Included in this effort will be the installation of a GBS receive suite at the JBC and the associated program plan to move the Phase I GBS Test Bed equipment to the JBC from the Pentagon. The JBC will be involved in joint evaluation of system applications for various MILSATCOM initiatives as they are developed, thereby assuring that they will be "born joint."

- (U) ($1,456K) Joint C4ISR Operational Architectures. The focus of Joint Operational Architectures is on C4ISR support to the warfighter across the "Range of Military Operations." The objective is to describe the doctrinally based tasks and activities, operational elements, and the time phased information flows required to accomplish Joint military operations. The architectures will be used to assess and analyze doctrine, TTPs, system and procedural interoperability, processes, and synchronization issues that impact Joint Forces. These Operational Architectures will provide the baseline to identify warfighter requirements, design and structure assessments, and generate functional metrics. They will be developed and documented in close coordination with OSD, Joint staff, CINCs, and Services.

3. (U) FY 2001 PLAN:

- ($1,570K) Follow-on JWID. Upon completion and evaluation of each theme year JWID the CINC's and CJTF's involved identify systems which demonstrated warfighting utility but which require further refinement and follow-on assessment. These technologies are forwarded to the JBC for inclusion in the exploitation fiscal year plan. Enhancements and follow-on assessments are conducted by JBC and programmatic recommendations are prepared.

- (U) ($1,921K) Federated Battle Lab (FBL). The FBL is a consortium of Joint and Service battle centers/laboratories formed to promote solutions to operational problems in CJTF environments. The JBC is recognized as the joint FBL hub by CINC's, services, agencies and CJTF's. The JBC, as

                                    Exhibit R-2, RDT&E,N Budget Item Justification

EXHIBIT R-2, FY2001 RDT&E,N Budget Item Justification   DATE: February 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0305188N   PROJECT NUMBER: X2456
                         PROGRAM ELEMENT TITLE: Joint (C4ISR) Battle Center

chairman of the consortium, will coordinate efforts to capitalize on lessons learned in order to continue these effective and successful collaborative experiments in future years.

- (U) ($1,407K) Intelligence, Surveillance and Reconnaisance (ISR). The JBC, as written into the Joint Intelligence Interoperability Board (JIIB), will perform system integration and functional assessments of the identified intelligence systems, including shared segments, as appropriate. JBC will establish and maintain a JTF Integration Facility (JTFIF) to include current and BETA baselines of all the major Service ISR systems to support on-going maturity, operational utility, and jointness assessments of ISR systems.

- (U) ($1,348K) Information Assurance (IA). JBC will continue to be a key player in IA Tools integration with network management and for emerging network IA technologies. JBC will incorporate red-teaming into Joint exercises and FBL efforts in order to facilitate JBC assessments of new C4ISR IA technologies. JBC will also be looking at Information Operations Planning Tools that provide analysis, correlation, and fusion capabilities as well as greater visualization, rehearsal, and wargaming/situational analysis capabilities.

- (U) ($657K) MILSATCOM. JBC will be a host site for the Global Broadcast System (GBS) Test Bed/GBS Receive Suite. Included in this effort will be the installation of a GBS receive suite at the JBC and the associated program plan to move the Phase I GBS Test Bed equipment to the JBC from the Pentagon. The JBC will be involved in joint evaluation of system applications for various MILSATCOM initiatives as they are developed, thereby assuring that they will be "Born Joint."

- (U) ($892K) Joint C4ISR Operational Architectures. The focus of Joint Operational Architectures is on C4ISR support to the warfighter across the "Range of Military Operations." The objective is to describe the doctrinally based tasks and activities, operational elements, and the time phased information flows required to accomplish Joint military operations. The architectures will be used to assess and analyze doctrine, TTPs, system and procedural interoperability, processes, and synchronization issues that impact Joint Forces. These Operational Architectures will provide the baseline to identify warfighter requirements, design and structure assessments, and generate functional metrics. They will be developed and documented in close coordination with OSD, Joint staff, CINCs, and Services.

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BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0305188N   PROJECT NUMBER: X2456
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C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY 1999 ACTUAL	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
(U) OPN 3368	2,677	0	0	0	0	0	0	0	2,677
(U) OMN 1C6C	10,071	12,456	12,730	13,009	13,296	13,296	13,296	Cont	Cont

D. (U) ACQUISITION STRATEGY

- FY 1998-01. The JBC does not have a major contract for its RDT&E efforts. Equipments that are required to support our various projects are either bought from other service contracts and/or from the GSA schedule. Services are provided by other services and/or various vendors with expertise on a specific assessment we are accomplishing.

Exhibit R-2, RDT&E,N Budget Item Justification

EXHIBIT R-3, FY 2001 RDT&E,N PROJECT COST ANALYSIS   DATE: Feb 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0305188N
                            PROGRAM ELEMENT TITLE: Joint (C4ISR) Battle Center

Exhibit R-3 Cost Analysis (page 1)												Date: FEB 2000	
APPROPRIATION/BUDGET ACTIVITY 1319/BA 7				PROGRAM ELEMENT: 0305188N						PROJECT NAME AND NUMBER: JBC/X2456			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Dev Support Equip Acquisition	MIPR	GSA Schedule		244	Var	405	Var	392	Var	Cont	Cont	Cont
Systems Engineering	C-CPFF	ODU		126	12/98	129	11/99	132	10/00	Cont	Cont	Cont
Development T&E	MIPR	MITRE		450	12/98						450	450
Government Engineering Supt	MIPR	Various DoD		302	3/99	1240	2/00	1196	10/00	Cont	Cont	Cont
Subtotal Product Development				1122		1774		1720		Cont	Cont	Cont
Remarks:												
Systems Engineering	C-CPFF	ODU		102	12/98	104	11/99	106	10/00	Cont	Cont	Cont
Contractor Engineering Supt	C-CPFF	GTE		579	12/98						579	579
Government Engineering Supt	MIPR	Various DoD		203	3/99	1234	2/00	1148	10/00	Cont	Cont	Cont
Subtotal Support				884		1338		1254		Cont	Cont	Cont
Remarks												

                                        Exhibit R-3, Project Cost Analysis

EXHIBIT R-3, FY 2001 RDT&E,N PROJECT COST ANALYSIS   DATE: Feb 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0305188N
                           PROGRAM ELEMENT TITLE: Joint (C4ISR) Battle Center

| Exhibit R-3 Cost Analysis (page 2) | | | | | | | | | | | Date: FEB 2000 | |
| APPROPRIATION/BUDGET ACTIVITY: 1319/BA 7 | | | | PROGRAM ELEMENT: 0305188 | | | | | | PROJECT NAME AND NUMBER: JBC/X2456 | | |
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Dev Support Equipment Acq	MIPR	GSA Schedule		317	Var	802	Var	770	Var	Cont	Cont	Cont
Systems Engineering	C-CPFF	ODU		239	12/98	241	11/99	246	10/00	Cont	Cont	Cont
Contractor Engineering Support	C-CPFF	GTE		1175	4/99						1175	1175
Gov Engineering Support	MIPR(s)	Various DoD		1406	2/99	3926	2/00	3805	10/00	Cont	Cont	Cont
Subtotal T&E				3137		4969		4821		Cont	Cont	Cont
Remarks												
Subtotal Management												
Remarks												
Total Cost				5143		8081		7795		Cont	Cont	Cont
Remarks												

Exhibit R-3, Project Cost Analysis