

# **JOINT STAFF**

**February 2004**



**Fiscal Year (FY) 2005 Budget Estimates  
Research, Development, Test & Evaluation, Defense-Wide**

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-1, RDT&E Programs**

Appropriation: Research, Development, Test & Evaluation

Date: February 2004  
TOA, \$ in Millions

<b>R-1 Line Program</b>			<b>Budget</b>			
<b>Item No.</b>	<b>Element No.</b>	<b>Item</b>	<b>Activity</b>	<b>FY 2003</b>	<b>FY 2004</b>	<b>FY 2005</b>
115	0605126J	Joint Theater Air & Missile Defense Organization (JTAMDO)	6	74.905	85.078	86.409
143	0208043J	*Planning & Decision Aid System (PDAS)	7	0.000	1.448	1.663
145	0208052J	Joint Analytical Model Improvement Program (JAMIP)	7	8.509	7.129	5.577
160	0303149J	C4I For The Warrior (C4IFTW)	7	9.466	4.139	4.177
194	0902298J	Management Headquarters (Joint Warfighting Capabilities Assessment (JWCA)/Analysis Support)	7	10.282	10.398	9.407
194	0902298J	Management Headquarters (Joint Staff Information Network (JSIN))	7	1.520	1.896	1.829
194	0902298J	Management Headquarters (Joint Staff Knowledge Management Program (JSKMP))	7	0.350	0.318	0.000
194	0902298J	Management Headquarters (Joint Operational Concepts/Joint Operational Architecture (JOC/JOA))	7	0.291	0.000	0.000
194	0902298J	Management Headquarters (Collaborative Force-Building Analysis, Sustainment, Transportation (CFAST) Tool)	7	3.961	16.309	11.185
<b>TOTALS</b>				<b>109.284</b>	<b>126.715</b>	<b>120.247</b>

\*Note: PLANNING AND DECISION AID SYSTEM (PDAS) is a protected Secretary of Defense-approved Special Access Program. Justification and description will be submitted under a separate cover.

**Exhibit R-1, RDT&E Programs**

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

Exhibit R-2, RDT&E Budget Item Justification									Date: February 2004	
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE: 115					
RDT&E, Defense Wide, Joint Staff 0400 / BA 6					0605126J Joint Theater Air and Missile Defense Organization (JTAMDO)					
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost
Total PE Cost		74.905	85.078	86.409	80.694	54.584	55.674	56.729	Continuing	Continuing
<p>A. <u>Mission Description and Budget Item Justification:</u> Joint Theater Air and Missile Defense Organization (JTAMDO) is the organization within the Department of Defense chartered to plan, coordinate, and oversee Joint Air and Missile Defense (AMD) requirements, joint operational concepts, operational architectures, and development of the Joint Integrated Air and Missile Defense (IAMD) roadmap, and which, as part of the CJCS staff, provides the Chairman's support in meeting his Title 10 responsibilities. JTAMDO is responsible for evaluating systems and emerging technologies through analyses, simulations, and demonstrations in order to determine capability deficiencies and to define and refine desired characteristics and capabilities, concepts, architectures, improve weapon system performance and to determine the optimum mix of surveillance, fire control systems and associated battle management system to counter aircraft, cruise missile and ballistic missile threats. The JTAMDO also serves as the operational community's proponent for characteristics, requirements and capabilities in air and missile defense, and is the joint air and missile defense resource proponent within the Department's resource allocation structures; leads AMD mission area and utility analysis; conducts evaluations and demonstrations of joint air defense architectures and concepts.</p> <p>In its critical role of integration for AMD architectures, JTAMDO also coordinates the funding for the Joint Distributed Engineering Plant (JDEP) that provides distributed architecture for AMD systems located around the country to facilitate integration and development work. JDEP is imperative for creating interoperable Joint Task Forces. Additionally, JTAMDO supports development of Joint cruise missile combat identification (CID) technology for fielding in front-line weapons systems as well as operator in-the-loop activities at the Virtual Warfare Center (VWC). The VWC is DoD's only means to quantify Joint Single Integrated Air Picture (SIAP) and CID characteristics and capabilities. In an effort to identify joint solutions to surveillance and command and control challenges, the Director of The Joint Staff designated JTAMDO as the Joint Staff lead for Interagency Homeland Air Security (IHAS) issues, working in close cooperation with USNORTHCOM, NORAD, Services, Federal Aviation Administration, Department of Homeland Security, and the Office of Homeland Security. An increase in FY 2004-2006 funding as a result of JTAMDO's DPG-directed Cruise Missile Defense (CMD) study provides R&amp;D funding to demonstrate advanced sensor technologies for air surveillance of the U.S. Fills a critical operational void in NORAD's ability to monitor U.S. airspace and conduct its air defense mission. Also supports demonstration of technology for identification of terrorist air attack, Interagency information and intelligence sharing, and decision aids. Effective 6 May 2003, JTAMDO reorganized to better assume this new role in homeland defense and continues supporting AMD activities. Accordingly, the organizational structure and budget was revised to facilitate this update in mission and structure. This program is in Budget Activity 6, because it performs general support of RDT&amp;E activities.</p>										

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

Exhibit R-2, RDT&E Budget Item Justification				Date: February 2004
APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE: 115	
RDT&E, Defense Wide, Joint Staff 0400 / BA 6			0605126J Joint Theater Air and Missile Defense Organization (JTAMDO)	
<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Description</u>	
19.055	-	-	JTAMDO budget formerly included Joint Theater Air and Missile Defense (JTAMD), Force Structure, Resources and Assessments, Combatant Commanders Requirements and Liaison, Architecture and Requirements Analysis. Due to the 2003 JTAMDO reorganization, these elements were internally restructured to the divisions listed below.	
-	8.382	8.565	<u>JTAMDO Operations</u> . Strategic planning development, infrastructure, security, travel, administrative and other support activities. Funding pays for: Contractor SETA support for ACMD, BMD, and HAS strategic planning, senior level briefings, and JTAMD white papers; leased office space and including all upkeep services; all travel costs for government and contractor support personnel, including support for Combatant Commander liaison personnel travel; multiple levels of security including lease support of a JWICS communications line and SCI terminals (due to the classified nature and the diverse content of work in the JTAMDO portfolio); 24 hour physical security force and alarm monitoring and maintenance; daily on-site security personnel to meet DoD, NISPOM, and other security regulations; for all administrative and support functions; all associated IT support, copier purchase and maintenance, as well as basic office supplies and furniture; all telephones, telephone lines, classified telephones, and classified/unclassified data connections.	
-	3.202	3.477	<u>Ballistic Missile Defense Systems (BMDS)</u> . Supports the President's initiative for ballistic missile defense of the U.S. Provides the Chairman and the Joint Requirements Oversight Council (JROC) the ability to meet statutory responsibilities to review the cost, schedule and performance criteria of Missile Defense programs of Missile Defense Agency (MDA) and assess the validity of those criteria in relation to national and military requirements. Includes JTAMDO sponsored war gaming analysis at the Joint National Integration Center (JNIC) in Colorado Springs to test and validate concepts for ballistic missile defense of the U.S. At the request of U.S. Strategic Command, and at the direction of the Chairman CJCS, JTAMDO acts as the Executive Agent for STRATCOM in the conduct of Military Utility Assessments of the Ballistic Missile Defense System. Develops and validates a missile defense operational architecture to support system developers.	

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

Exhibit R-2, RDT&E Budget Item Justification			Date: February 2004
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE: 115	
RDT&E, Defense Wide, Joint Staff 0400 / BA 6		0605126J Joint Theater Air and Missile Defense Organization (JTAMDO)	
FY 2003	FY 2004	FY 2005	Description
-	0.811	0.829	<u>Air &amp; Cruise Missile Defense (ACMD)</u> . Joint Staff lead responsibility for air and cruise missile defense systems to support the Combatant Commanders (COCOMs). Includes performing analyses, demonstrations, and programmatic assessments of ACMD technology, operations, requirements, and weapon systems. In support of requirements and acquisition decisions, for example, the radar and weapon capability requirements of the combined Patriot MEADS program; studies of the mix of land, sea-, and air-based surveillance and fire control sensors for air and missile defense to support JPG and POM 2006 decisions.
-	4.048	4.137	<u>Operational Concept, Architecture and Interoperability Development</u> . Leads the development and approval of Joint AMD Operational Concepts and Operational Architectures, leveraging JTAMDO's analysis activities. Supports interoperability initiatives such as SIAP and Joint Distributed Engineering Plant (JDEP). Conducts architectural analyses on Joint BMC2 functionality to support requirements and acquisition decisions on the combined Patriot MEADS program.
-	3.855	3.940	<u>Requirements, Exercises &amp; Liaison</u> . Responsible for tracking air and missile defense programs and budget issues as a representative of the Combatant Commanders (COCOMs). Ensures COCOM Integrated Priority List/Joint Military Readiness Reports (JMRR) priorities are integrated into air and missile defense initiatives, issues, and activities. Develops U.S. positions for, and serves as U.S. representative to the NATO Air Defense Committee. Develops/integrates Joint exercise initiatives for inclusion in COCOM exercises and provides funding to insure COCOM objectives are met and to enable their participation. Manages Congressional interaction, executes JTAMDO COCOM Liaison Officer mission and all air and missile defense-related intelligence activities.
-	0.608	0.622	<u>Homeland Air Security (HAS)</u> . Responsible for DoD involvement in homeland air security coordination. Perform analyses, demonstrations, and programmatic assessments of HAS operations, technology, requirements, and surveillance and weapon systems. Supports HAS initiatives in (COCOM) exercises. Serves as Co-Chair IHAS Steering Group and supports NORTHCOM on Homeland Security and Homeland Defense.
9.792	8.881	9.458	<u>Joint Distributed Engineering Plant (JDEP)</u> . Evaluates and improves interoperability by establishing a nationwide, hardware and software in the loop simulation capability that allows fielded combat weapon systems to operate in a synthetic joint air and missile defense environment. Insures weapon systems can validate their Joint interoperability

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

Exhibit R-2, RDT&E Budget Item Justification				Date: February 2004
APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE: 115	
RDT&E, Defense Wide, Joint Staff 0400 / BA 6			0605126J Joint Theater Air and Missile Defense Organization (JTAMDO)	
			prior to operational deployment or fielding. Minimizes the impact on operational forces support for RDT&E activities.	
17.426	10.884	7.073	<u>Virtual Warfare Center (VWC)</u> . Enhances VWC capability by adding representations of new weapons platform models to conduct Single Integrated Air Picture (SIAP) and CID requirements and concepts analysis at the force-on-force level. Integrate Cruise and Ballistic Missile Requirements and Ops Concept Analysis through federation with simulation capabilities at the Joint National Integration Center, Schriever AFB, Colorado.	
22.614	19.264	15.308	<u>Cruise Missile Combat Identification (CID)</u> . Develops joint cruise missile CID technology and positions it for fielding on front-line weapon systems.	
6.018	25.143	33.000	<u>Homeland Air Security (HAS)</u> . Reduce HAS risk by developing and testing a surface based, advanced technology surveillance radar for use throughout the United States, designing lightweight, long range radar components suitable for use on a stratospheric airship, and by funding initial Interagency C3 studies, operator-in-the-loop exercise support, and advanced sensor and correlation evaluation efforts.	
<b>TOTAL</b>	<b>\$74.905</b>	<b>\$85.078</b>	<b>\$86.409</b>	
<b>B. Program Change Summary:</b>				
	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	
FY 2004 President's Budget	68.887	87.250	86.631	
Adjustments				
Congressional Reduction				
General Congressional Reductions		(1.222)	(0.222)	
Internal Reprogramming		(0.950)		
Homeland Air Security	6.018			
FY 2005 Budget Estimate	74.905	85.078	86.409	
<b>C. Other Program Funding Summary</b>				
Procurement Defense-Wide	0.185	0.184	0.185	
<b>D. Acquisition Strategy: Not required for Budget Activities 1, 2, 3, and 6.</b>				

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

Exhibit R-2, RDT&E Budget Item Justification									Date: February 2004																	
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE: 145																					
RDT&E, Defense Wide, Joint Staff 0400 / BA7					PE: 0208052J Joint Analytical Model Improvement Program (JAMIP)																					
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost																
Joint Warfare System (JWARS)		8.509	7.129	5.577	5.648	5.780	5.885	5.993	TBD	TBD																
Total PE Cost		8.509	7.129	5.577	5.648	5.780	5.885	5.993	TBD	TBD																
<p>A. <u>Mission Description and Budget Item Justification:</u> In May 1995, Deputy Secretary of Defense approved JAMIP to improve analytic support to senior DoD officials. The Joint Staff's J-8 shares the lead with the Office of the Secretary of Defense, Director of Program Analysis &amp; Evaluation (OSD (PA&amp;E)). The RDT&amp;E component of JAMIP is the development of the Joint Warfare System (JWARS), which will be a state-of-the-art, closed-form, constructive simulation of multi-sided, joint warfare for analysis. The Joint Staff and the Services have agreed upon JWARS as the common model to be used throughout the DoD analytic modeling community. JWARS is an advanced, theater-level campaign analysis tool that will provide improved Command, Control, Communications, Computers, and Intelligence, Surveillance and Reconnaissance (C4ISR) and balanced joint warfare representations and will be used for evaluation of courses of action, analysis of force sufficiency, force and capability tradeoffs, objective force planning and force structure design, analysis of system alternatives, system tradeoffs, and examination of operational concepts. Users of JWARS will include the Combatant Commanders, Joint Staff, Services, OSD, and other DoD organizations. RDT&amp;E funds are used for research, design, implementation, and test and evaluation, and are needed to continue development of the top-priority joint warfare model as directed by the Deputy Secretary of Defense and endorsed by the Vice Chairman, Joint Chiefs of Staff. This program is in Budget Activity 7 - Operational Systems Development, because it supports currently employed systems and training activities.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>FY 2003</u></th> <th style="text-align: left;"><u>FY 2004</u></th> <th style="text-align: left;"><u>FY 2005</u></th> <th style="text-align: left;"><u>Description</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: left;">7.945</td> <td style="text-align: left;">6.520</td> <td style="text-align: left;">4.989</td> <td style="text-align: left;">Software Development</td> </tr> <tr> <td style="text-align: left;">0.564</td> <td style="text-align: left;">0.609</td> <td style="text-align: left;">0.588</td> <td style="text-align: left;">Other Support/Purchased Software</td> </tr> <tr> <td style="text-align: left;"><b>8.509</b></td> <td style="text-align: left;"><b>7.129</b></td> <td style="text-align: left;"><b>5.577</b></td> <td style="text-align: left;"><b>Total</b></td> </tr> </tbody> </table>											<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Description</u>	7.945	6.520	4.989	Software Development	0.564	0.609	0.588	Other Support/Purchased Software	<b>8.509</b>	<b>7.129</b>	<b>5.577</b>	<b>Total</b>
<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Description</u>																							
7.945	6.520	4.989	Software Development																							
0.564	0.609	0.588	Other Support/Purchased Software																							
<b>8.509</b>	<b>7.129</b>	<b>5.577</b>	<b>Total</b>																							

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

Exhibit R-2, RDT&E Budget Item Justification		Date: February 2004	
<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE: 145</b>		
RDT&E, Defense Wide, Joint Staff 0400 / BA7	PE: 0208052J Joint Analytical Model Improvement Program (JAMIP)		
<b>B. <u>Program Change Summary:</u></b>			
	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
FY 2004 President's Budget	8.509	7.146	5.577
Total adjustments			
a. Congressional Reduction			
b. Internal Reprogramming		(0.017)	
<b>FY 2005 Budget Estimate</b>	<b>8.509</b>	<b>7.129</b>	<b>5.577</b>
<b>C. <u>Other Program Funding Summary:</u> The O&amp;M and Procurement funds listed below are for Joint Data Support (JDS), an organization within OSD (PA&amp;E) whose mission is to provide data support for JWARS development and for Department-level studies and analyses. This includes those studies using other models within the JAMIP Suite.</b>			
	<u>FY 2003</u>	<u>FY2004</u>	<u>FY2005</u>
O&M Defense-Wide	7.755	7.608	9.227
Procurement Defense-Wide	0.397	0.390	0.395
<b>D. <u>Acquisition Strategy:</u> This program supports development of the JWARS model.</b>			
<b>E. <u>Schedule Profile:</u></b>			
	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
<u>Event</u>	(Fiscal Qtr): 1 2 3 4	1 2 3 4	1 2 3 4
Release 1.5	x		
Release 1.5.1		x	
Release 1.5.2		x	
Release 1.6			x



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**Exhibit R-3, Project Cost Analysis**

Exhibit R-3, Project Cost Analysis										Date: February 2004		
APPROPRIATION/BUDGET ACTIVITY: RDT&E, Defense Wide, Joint Staff 0400 / BA 7			PROGRAM ELEMENT: 0208052J Joint Analytic Model Improvement Program (JAMIP)					PROJECT NAME: Joint Warfare System (JWARS)				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY03 Cost	FY03 Award Date	FY04 Cost	FY04 Award Date	FY05 Cost	FY05 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Management and professional support services	Various	Various	0.000	0.000		0.000		0.000		N/A	TBD	TBD
CAAS engineering and technical services	Various	Various	9.867	7.945		6.510		4.989		N/A	TBD	TBD
FFRDC engineering and technical services	Various	Various	0.368	0.000		0.000		0.000		N/A	TBD	TBD
Other services	Various	Various	0.378	0.564		0.619		0.588		N/A	TBD	TBD
Congressional non-programmatic rescission												
Subtotal Product Development			10.613	8.509		7.129		5.577		TBD	TBD	TBD
Remarks: The Limited IOC version (Release 1) of JWARS is designed to support the Services, Joint Staff, and OSD in conducting force assessment studies. In FY 2002, Release 1.4 was completed and distributed to selected user sites for Beta Testing. In FY 2003, Release 1.5 will be distributed. Release 1.5 is a major release addressing the user issues discovered during Beta-testing, and will be the first release available to users for possible use for analysis.												
Total Cost			10.613	8.509		7.129		5.577				
Remarks												

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

Exhibit R-2, RDT&E Budget Item Justification									Date: February 2004	
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE: 160					
RDT&E, Defense Wide, Joint Staff 0400 / BA7					PE: 0303149J C4I for the Warrior (C4IFTW)					
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost
Total PE Cost		9.466	4.139	4.177	4.249	4.258	4.325	4.471	TBD	TBD
Network Warfare Simulation (NETWARS)		6.061	.241	.289	.289	.294	.329	.331	TBD	TBD
Joint Warrior Interoperability Demonstrations (JWID)		1.532	1.510	1.546	1.542	1.555	1.553	1.551	TBD	TBD
Joint Satellite Communications Architecture Planning and Evaluation (J-SCAPE) Tool		1.873	2.388	2.342	2.418	2.409	2.443	2.589	TBD	TBD
<p>A. <u>Mission Description and Budget Item Justification:</u> The C4IFTW vision has evolved into the Department's Global Information Grid (GIG) as a means to achieve information superiority. This program provides focus and visibility into resolving joint C4 capacity and interoperability issues and provides a mechanism for achieving information superiority as envisioned by Joint Vision (JV) 2020. Currently, the overall GIG efforts stress interoperability, identification of transmission capacity, and leveraging of the rapid pace of C4 technology advancements. As the GIG evolves and matures, it will spawn new approaches to providing the joint warfighter with C4 capabilities to achieve information superiority. This program element consists of two Joint Staff programs: (1) Network Warfare Simulation (NETWARS), (2) Joint Warrior Interoperability Demonstrations (JWID), and (3) Joint Satellite Communications Architecture Planning and Evaluation (J-SCAPE) tool. Starting in FY 2003, day-to-day program and budget management activities for NETWARS were turned over to DISA. NETWARS oversight support will continue to be maintained at the Joint Staff, in accordance with a memorandum of agreement between the Director, DISA, and the Joint Staff, J-6. JWID is the only CJCS-sponsored demonstration of new and emerging, low-cost, low-risk C4ISR technologies and interoperability solutions, impartially presented to the Combatant Commands and Military Services, and national civil authorities, in an operational environment. Proposals are selected to fulfill identified warfighter deficiencies and are designed to provide the opportunity to experiment with new and emerging capabilities, assess their value, and recommend them for implementation where appropriate. JWID provides a structured process where new C4ISR capabilities are rigorously vetted, evaluated, and assessed by the warfighter. JWID is an integral component of the JV 2020 conceptual template for future joint warfighting. The current focus of the Satellite Communications (SATCOM) operations analysis and integration effort is the development of the Joint Satellite Communications Architecture Planning and Evaluation (J-SCAPE) Tool Set. J-SCAPE is required to provide decision-makers with the means to focus the ongoing modernization of SATCOM assets to transform current systems and choose the best architectural alternative for the 21<sup>st</sup> century SATCOM infrastructure. The J-SCAPE tool set is also required to support planning and evaluation necessary to maximize all four of the operational concepts of JV 2020--dominant maneuver, precision</p>										

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

Exhibit R-2, RDT&E Budget Item Justification		Date: February 2004	
<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE: 160</b>		
RDT&E, Defense Wide, Joint Staff 0400 / BA7	PE: 0303149J	C4I for the Warrior (C4IFTW)	
<p>engagement, focused logistics, and full dimensional protection. Currently, there is no effective, efficient, capability to plan and evaluate the ability of current and future SATCOM architectures to meet the Combatant Commands' requirements. When fully operational, the J-SCAPE tool set will be used by the Joint Staff, Combatant Commands, their components, other joint organizations, satellite systems program offices, and Earth terminal program offices. The Services will use this tool set to assess the adequacy of SATCOM systems to support their assigned missions, evaluate operational plans, define SATCOM-related operational requirements, and provide operational input to the acquisition process.</p>			
<b>B. Program Change Summary:</b>			
	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
FY 2004 President's Budget	9.466	4.198	4.188
Total Adjustments			
a. Internal Reprogramming		(0.059)	( 0.011)
<b>FY 2005 Budget Estimate</b>	<b>9.466</b>	<b>4.139</b>	<b>4.177</b>
<b>C. <u>Other Program Funding Summary:</u> N/A.</b>			
<b>D. <u>Acquisition Strategy:</u> Exhibit R2a attached.</b>			
<b>E. <u>Schedule Profile:</u> Exhibit R2a attached.</b>			

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**Exhibit R-2a, RDT&E Budget Item Justification**

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT			PROJECT NAME AND NUMBER																																									
RDT&E, Defense Wide, Joint Staff 0400 / BA7		0303149J			C4I for the Warrior – NETWARS																																									
Cost (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost																																				
NETWARS		6.061	0.241	0.289	0.289	0.294	0.329	0.331	TBD	TBD																																				
RDT&E Articles Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A																																				
<p>A. <b>Mission Description and Budget Item Justification:</b> The C4I for the Warrior (C4IFTW) vision has evolved into the Department’s Global Information Grid (GIG) as a means to achieve information superiority. In FY 2003, Defense Information Services Agency (DISA) assumed the leadership role for the NETWARS program, including day-to-day program management, contract management, and budget management. NETWARS funding was transferred to DISA during FY 2003, with the exception of one contracted man-year equivalent of support for the Joint Staff. NETWARS provides joint warfighters with a C4 modeling and simulation (M&amp;S) tool to assess the effects of full operational combat traffic loading on current and future communications systems and networks in a joint task force major theater of war scenario, conduct quick-turn communications planning for small regional conflicts or peacekeeping scenarios, and evaluate new communication systems and technologies. The NETWARS program office works with the joint community to identify and support M&amp;S study efforts that enable users to investigate and assess high-priority C4ISR technologies in the context of realistic warfighter scenarios. NETWARS supports capability developers, strategic and operational communications analysts, as well as strategic, operational, and tactical communications network planners. NETWARS is being integrated into the Joint Network Management System (JNMS) tool suite in order to make this capability more accessible to communications planners and managers, and to make M&amp;S an integrated part of the overall C4 network planning and management process.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">FY 2003</th> <th style="text-align: left;">FY 2004</th> <th style="text-align: left;">FY 2005</th> <th style="text-align: left;"><u>Description</u></th> </tr> </thead> <tbody> <tr> <td>1.600</td> <td></td> <td></td> <td>Software Development: Tool Kit Functionality</td> </tr> <tr> <td>1.200</td> <td></td> <td></td> <td>Software Development: Comm Model Development</td> </tr> <tr> <td>0.550</td> <td></td> <td></td> <td>Standardization/Interoperability (JWARS, JNMS, etc.)</td> </tr> <tr> <td>1.400</td> <td></td> <td></td> <td>Comm Burden Assessment Studies</td> </tr> <tr> <td>0.520</td> <td>0.241</td> <td>0.289</td> <td>Joint Studies, Requirements Support, and Technical Support</td> </tr> <tr> <td>0.591</td> <td></td> <td></td> <td>Training and Development Support</td> </tr> <tr> <td>0.200</td> <td></td> <td></td> <td>Maintenance (licenses, etc.)</td> </tr> <tr> <td style="border-top: 1px solid black;">6.061</td> <td style="border-top: 1px solid black;">0.241</td> <td style="border-top: 1px solid black;">0.289</td> <td>Total</td> </tr> </tbody> </table> <p>B. <b>Accomplishments/Planned Program:</b>  <b>FY 2003 Accomplishments.</b> A 5-year contract was competitively awarded to OPNET Technologies January 6, 2003 and it will be administered by DISA. During FY 2003 NETWARS achieved DII COE compliance in order to provide greater interoperability among systems, including JNMS. NETWARS added a significant number of new communications device models to its “library,” including models developed by the U.S. Navy and U.S. Air Force. Those device models are now available to all joint users. The program released two significant software updates in FY 2003, incorporating</p>											FY 2003	FY 2004	FY 2005	<u>Description</u>	1.600			Software Development: Tool Kit Functionality	1.200			Software Development: Comm Model Development	0.550			Standardization/Interoperability (JWARS, JNMS, etc.)	1.400			Comm Burden Assessment Studies	0.520	0.241	0.289	Joint Studies, Requirements Support, and Technical Support	0.591			Training and Development Support	0.200			Maintenance (licenses, etc.)	6.061	0.241	0.289	Total
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**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NAME AND NUMBER
RDT&E, Defense Wide, Joint Staff 0400 / BA7	0303149J	C4I for the Warrior – NETWARS
<p>new features and capabilities requested by joint users. NETWARS became fully integrated into the JNMS tool suite, and provided substantial support to the JNMS program office during its functional qualification testing and in preparation for its operational test and evaluation (OT&amp;E). NETWARS supported numerous joint user endeavors, including: Joint exercises DICE, Combined Endeavor, and Cobra Gold; study efforts in support of USFK, USPACOM, USNORTHCOM, and the National Missile Defense Agency; and conducted on-site training support for numerous Service, Combatant Command, and DoD Agency users.</p> <p><u>FY 2004 Planned Activities.</u> Working together with the DISA NETWARS program office, the Joint Staff, J-6, will continue to provide oversight of NETWARS ability to satisfy joint user C4 M&amp;S requirements. Specific focus will be on NETWARS development and functionality required by the JNMS program, which will be tested in the JNMS OT&amp;E in 2<sup>nd</sup> Qtr FY 2004. The Joint Staff, J-6 will also oversee the NETWARS Study Program, monitoring on-going FY 2004 study efforts, and identifying and prioritizing study efforts to be undertaken in FY 2005. Specific efforts to be accomplished in FY 2004 include support to the National Missile Defense Agency (Team B), the multinational C4 exercises Combined Endeavor and American, British, Canadian and Australian Armies’ Standardization Program (ABCA). Starting in FY 2004 funding and overall control of the NETWARS program shifts to DISA. Funds remaining on the Joint Staff will be used for contract support to interface with DISA, and to ensure integrations of NETWARS functionality with other Joint programs, such as JWARS and JNMS. Also, this support will identify and satisfy Joint Warfighter requirements for future NETWARS development.</p> <p><u>FY 2005 Planned Program.</u> NETWARS study efforts in support of joint users will continue and build upon program development and study efforts conducted in FY 2004 with particular focus on: multinational and multi-agency C4 network M&amp;S; enhanced JNMS data exchange and interoperability; and support of Transformational Communications (TC) and Future Combat System (FCS) activities. The Joint Staff, J-6, will continue to provide program oversight focused on identification and satisfaction of joint warfighter C4 M&amp;S requirements.</p> <p>C. <u>Other Program Funding Summary:</u> N/A</p> <p>D. <u>Acquisition Strategy:</u> <i>FY 1997:</i> A Mission Needs Statement was developed and signed. Subsequent to initiating model development, an extensive Program Development Plan was developed and approved by the Director, Command, Control, Communications, and Computer (C4) Systems Directorate (J-6). A proof-of-concept effort validated the concept and determined that NETWARS would support the requirements. <i>FY 1998:</i> A Configuration Management Plan, Software Development and Integration Plan, and Systems Architecture Design Plan were developed. Initiated software and communications modules development and integration. NETWARS Toolkit Version 1.1 functional requirements were derived, documented, and formalized. JWARS initial requirements for C4 were evaluated relative to expected analytical outputs from NETWARS. <i>FY 1999:</i> Based on further refinement and analysis of requirements, initiated a transition to lower-risk developmental software and toward building the NETWARS Toolkit</p>		

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NAME AND NUMBER
RDT&E, Defense Wide, Joint Staff 0400 / BA7	0303149J	C4I for the Warrior – NETWARS
<p>Advanced Development, Interim Version. Concurrent communications studies of accepted Joint Task Force (JTF) scenarios will help to refine requirements, the development of data, and the development of models that represent the C4 processors, systems, and networks used in a JTF that will become part of the NETWARS data and model repository. Continued development of NETWARS standards. <i>FY 2000:</i> Interim Version 2.0 provided to Combatant Commands/Services/Agency (C/S/A) users, including a training course, in November 1999. Continued development of NETWARS Toolkit Advanced Development, Version 2.0, associated documentation and completion of a Southwest Asia JTF-based communication burden assessment. <i>FY2001:</i> Further expansion of toolkit functionality (Versions 2.2 and 2.5) involved development of needed specific communication system models and information exchange requirements data; a series of developmental studies for Southwest Asia JTF scenarios (of up to 20,000 communication nodes); and gathering requirements from model users. Codified program requirements for subsequent toolkit conversion were captured subsequent to extensive use of NETWARS by the Combatant Commands, Services, and agencies. Continued development of input data in conjunction with communications studies conducted in parallel with model development. <i>FY2002:</i> Emphasis was on further expansion of toolkit functionality in response to requirements identified by Combatant Commands, Services and agencies; several studies to include a Northeast Asia scenario, the Army's Future Combat System (FCS) and the initial phase of a multi-year logistics communications modeling and simulation effort by OUSD (AT&amp;L); release of several contingency planning tools for use by the Combatant Commands; and the award of a competitively bid contract. Additionally, with the recent award of the Joint Network Management System contract (JNMS), it is logical that the NETWARS program will serve as one of the Government Off The Shelf (GOTS) software options incorporated by JNMS. As such, the potential exists for some associated integration costs as the JNMS technical design matures. <i>FY 2003:</i> NETWARS program, contract, and budget management functions transitioned to DISA. NETWARS focused efforts on integration with the Joint Network Management System (JNMS) and looked for efficiencies to be gained in standardizing software data elements and communications device models. <i>FY 2004:</i> The NETWARS program will continue this effort in FY 2004 as JNMS completes its OT&amp;E and begins fielding to joint users.</p> <p>E. <u>Schedule Profile and Performance Measures:</u> The first-Phase review was 23 September 1997, when the Phase I proof-of-concept results were presented to the J-6 and Service/Agency representatives. The mid-Phase II In-Progress Review (IPR) to the J-6 and the Service/Agency representatives was held on 19 December 1997. Block I formally began in March 1997 and involved researching and writing a detailed NETWARS development plan, followed by conducting a proof-of-concept prototype demonstration of a small JTF scenario of 100 to 200 communications nodes. Block II began in mid-September 1997, and was completed in October 1998. In Block II, J-6 continued the design and building to complete version 1.1 of the front-end toolset database and completed a study of a small JTF of up to 5,000 nodes and a JTF scenario of up to 10,000 nodes. The scenario selected was the Synthetic Theater of War (STOW)/UNITED ENDEAVOR 98-1 scenario, which involved a JTF defense of Kuwait. Block III, Version 2.0, which began in April 1999, involved advanced development, testing, and building of the interim Version 2.0 front-end toolkit and database for NETWARS, plus completing a Joint Task Force scenario of up to 5,000 communications nodes. Reviews of Version 2.0 were held in March 2000, with additional upgrading scheduled for August - November 2000. A refined 5,000-node communication burden assessment was completed in December 2000. Joint, Combatant Commands, Service, and Agency representatives will review that assessment for accuracy and completeness. By integrating input from these users,</p>		

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NAME AND NUMBER											
RDT&E, Defense Wide, Joint Staff 0400 / BA7	0303149J	C4I for the Warrior – NETWARS											
<p>NETWARS will enhance the abilities of the Combatant Commands, Services, and agencies to meet the goals stated in JV 2010, JV 2020, and the GIG Capstone Requirements Document (CRD). In FY 2003, NETWARS conducted detailed Verification and Validation (V&amp;V) testing of two new software versions, including testing of DII COE compliance. Successful completion of this testing resulted in approval of two new software versions. Additional operational validation was achieved through completion of a theater-wide network model development in conjunction with U.S. Forces Korea, and in extensive functional qualification testing conducted in conjunction with the JNMS program. NETWARS functional capabilities will be stringently tested by operational users in FY 2004 as part of the JNMS OT&amp;E effort.</p>													
		<u>FY 2003</u>				<u>FY 2004</u>				<u>FY 2005</u>			
(Fiscal Qtr)		1	2	3	4	1	2	3	4	1	2	3	4
Contract Award to OPNET Technologies		X											
IOC			X										
FOC (FY 2009/4 <sup>th</sup> Qtr)									X (JNMS Version)				

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**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-3, Project Cost Analysis**

Exhibit R-3, Project Cost Analysis										Date: February 2004		
APPROPRIATION/BUDGET ACTIVITY: RDT&E, Defense Wide, Joint Staff 0400 / BA7				PROGRAM ELEMENT: 0303149J						PROJECT NAME: C4I for the Warrior – NETWARS		
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY03 Cost	FY03 Award Date	FY04 Cost	FY04 Award Date	FY05 Cost	FY05 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Definition & Proof of Concept	CPFF	MITRE	0	0		0		0		TBD	TBD	
Software Development	CPFF									TBD	TBD	
Program Management	CPFF		.200	0		0		0		TBD	TBD	
COTS Hardware and Software	CPFF									TBD	TBD	
Toolkit Functionality	Fixed Price	OPNET Technologies	1.470	1.600	Jan 03	0		0				
Standardization/Interoperability	CPFF	Various								TBD	TBD	
Communication Model Development	CPFF	Various	.700	1.200		0		0				
IER Refinement	CPFF	Various	.500									
<b>Subtotal Product Development</b>			<b>2.870</b>	<b>2.800</b>	<b>Jan 03</b>	<b>0</b>		<b>0</b>		<b>TBD</b>	<b>TBD</b>	
Communications Developmental Studies	CPFF									TBD	TBD	
Communications Burden Assessment Studies	CPFF	Various	1.787	1.400	Jan 03	0		0				
Configuration Mgmt	CPFF		.100			0		0		TBD	TBD	
Maintenance	CPFF		.100	.200	Jan 03	0		0				
Training/Development Support	CPFF		.200	.381	Jan 03	0		0				
<b>Subtotal Support Cost</b>			<b>2.187</b>	<b>1.981</b>		<b>0</b>		<b>0</b>				



**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-3, Project Cost Analysis**

Exhibit R-3, Project Cost Analysis										Date: February 2004		
APPROPRIATION/BUDGET ACTIVITY: RDT&E, Defense Wide, Joint Staff 0400 / BA 7			PROGRAM ELEMENT: 0303149J							PROJECT NAME: C4I for the Warrior – NETWARS		
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY03 Cost	FY03 Award Date	FY04 Cost	FY04 Award Date	FY05 Cost	FY05 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Verification & Validation	CPFF	Various	.200		TBD					TBD	TBD	
<b>Subtotal T&amp;E</b>			<b>.200</b>	<b>0</b>		<b>0</b>		<b>0</b>		<b>TBD</b>	<b>TBD</b>	
Contractor (FFRDC) Eng Support	CPFF	Various	.500	0.220	TBD					TBD	TBD	
Contractor Eng and Technical Support	CPFF	Various		0.410		0.241		0.289	TBD			
Independent Cost Estimate (ICE) (FFRDC)		MITRE								TBD	TBD	
NETWARS Standardization		Various		0.650								
Congressional non-programmatic rescission												
<b>Subtotal Management</b>			<b>.500</b>	<b>1.280</b>		<b>0</b>		<b>0</b>				
<b>Total Cost</b>			<b>5.757</b>	<b>6.061</b>		<b>0.241</b>		<b>0.289</b>				
Remarks NETWARS transferred to DISA control in FY 2003.												

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

Exhibit R-2a, RDT&E Project Justification									Date: February 2004													
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER																
RDT&E, Defense Wide, Joint Staff 0400 / BA7			0303149J			C4I for the Warrior (C4IFTW) - Joint Warrior Interoperability Demonstration (JWID)																
Cost (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost												
JWID		1.532	1.510	1.546	1.542	1.555	1.553	1.551	TBD	TBD												
RDT&E Articles Qty		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A												
<p>A. <u>Mission Description and Budget Item Justification:</u> The C4IFTW vision has evolved into the Department's Global Information Grid (GIG) as a means to achieve information superiority. JWID provides focus and visibility into resolving coalition C4 interoperability issues and provides organizing principles, techniques, and procedures for achieving information superiority as envisioned by Joint Vision (JV) 2020. The GIG stresses interoperability and JWID leverages the rapid pace of C4 technology advancements. JWID is the Chairman's annual event that enables the U.S. Combatant Commands, national civil authorities, and international community to investigate command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) solutions that focus on relevant and timely objectives for enhancing coalition interoperability and exploring new partnerships. JWID is conducted in a simulated operational environment to provide context for warfighter and national civil authorities validation of those solutions. Interoperability Trials (ITs) are the activities used to address the core coalition, and interagency interoperability objectives selected each year. ITs strive to address warfighter requirements and interoperability deficiencies. Ideally, they will benchmark successes that can immediately support and enhance operations requiring multinational or interagency cooperation. The selection of trials is dependent upon the annual overarching objectives, the host Combatant Command's priorities, C/S/A desires to partner in a proposed trial, interagency participation, and the desires of invited coalition participants. JWID is an integral component of the JV 2020 conceptual template for future joint and coalition warfighting. Interoperability and information superiority are key goals of the Chairman of the Joint Chiefs of Staff.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>FY 2003</u></th> <th style="text-align: left;"><u>FY2004</u></th> <th style="text-align: left;"><u>FY2005</u></th> <th style="text-align: left;"><u>Description</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: left;">1.532</td> <td style="text-align: left;">1.510</td> <td style="text-align: left;">1.546</td> <td style="text-align: left;">Contract Engineering and Technical Support</td> </tr> <tr> <td style="text-align: left;">1.532</td> <td style="text-align: left;">1.510</td> <td style="text-align: left;">1.546</td> <td style="text-align: left;">Total</td> </tr> </tbody> </table> <p>B. <u>Accomplishments/Planned Program:</u></p> <p><u>FY 2003 Accomplishments:</u> The JWID 2003 network was comprised of 29 connection sites supporting eight countries and NATO, as well as nine primary network sites located within the continental United States. Two information domains were created to ensure due diligence in protecting sensitive information. The two domains were termed "6-eyes" and "10-eyes" respectively. The 6-eyes domain contained the traditional six CCEB allied nations</p>											<u>FY 2003</u>	<u>FY2004</u>	<u>FY2005</u>	<u>Description</u>	1.532	1.510	1.546	Contract Engineering and Technical Support	1.532	1.510	1.546	Total
<u>FY 2003</u>	<u>FY2004</u>	<u>FY2005</u>	<u>Description</u>																			
1.532	1.510	1.546	Contract Engineering and Technical Support																			
1.532	1.510	1.546	Total																			

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

Exhibit R-2a, RDT&E Project Justification			Date: February 2004		
<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>PROGRAM ELEMENT</b>	<b>PROJECT NAME AND NUMBER</b>			
RDT&E, Defense Wide, Joint Staff 0400 / BA7	0303149J	C4I for the Warrior (C4IFTW) - Joint Warrior Interoperability Demonstration (JWID)			
<p>while the 10-eyes domain consisted of the six CCEB nations plus the four PACRIM nations. The dual-domain network successfully allowed 42 Coalition Interoperability Trials (CITs) to execute over 1,500 Master Scenario Events List (MSEL) occurrences. Four ITs were judged as top performers and recommended to USJFCOM for expedited fielding.</p> <p><u>FY 2004 Planned Program:</u> JWID 2004 host Combatant Command will be USNORTHCOM. FY 2004 activity will center on conducting CITs of hardware, software, and procedures for emerging interagency interoperability issues and problems with other U.S. Government departments as well as continuing CITs with multiple allied nations. With the goal of identifying benchmark successes that can immediately support interagency operations, as well as multinational operations. JWID 2004 participation includes the Department of Homeland Security, U.S. Coast Guard, National Guard Bureau, Federal Emergency Management Agency and its Canadian counterpart.</p> <p><u>FY 2005 Planned Program:</u> JWID 2005 host Combatant Command will be USNORTHCOM. FY 2005 activity will center on conducting Interoperability Trials (ITs) of hardware, software, and procedures for emerging interagency interoperability issues and problems with other U.S. Government departments, as well as continuing ITs with multiple allied nations. With the goal of identifying benchmark successes that can immediately support interagency operations, as well as multinational operations. Department of Justice participation is anticipated.</p>					
C. <u>Other Program Funding Summary:</u>					
	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Complete</u>	<u>Total Cost</u>
O&M Defense-Wide	0.743	0.722	0.684	TBD	TBD
Procurement Defense-Wide	0.264	0.263	0.244	TBD	TBD
D. <u>Acquisition Strategy:</u> N/A					
E. <u>Schedule Profile:</u> The RDT&E program will be executed throughout various quarters across the Fiscal Years.					

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**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-3, Project Cost Analysis**

Exhibit R-3, Project Cost Analysis										Date: February 2004		
APPROPRIATION/BUDGET ACTIVITY: RDT&E, Defense Wide, Joint Staff 0400 / BA 7			PROGRAM ELEMENT: 0303149J						PROJECT NAME: C4I for the Warrior – JWID			
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY03 Cost	FY03 Award Date	FY04 Cost	FY04 Award Date	FY05 Cost	FY05 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Verification & Validation												
Subtotal T&E												
Contract Engineering and Technical Support		Various	1.530	1.532	TBD	1.510	TBD	1.546	TBD	TBD	TBD	
Subtotal Management			1.530	1.532		1.510		1.546		TBD	TBD	
<b>Total Cost</b>			<b>1.530</b>	<b>1.532</b>		<b>1.510</b>		<b>1.546</b>		TBD	TBD	

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

Exhibit R-2a, RDT&E Project Justification									Date: February 2004																																	
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER																																				
RDT&E, Defense Wide, Joint Staff 0400 / BA7			0303149J			C4 for the Warrior (C4IFTW) - SATCOM Ops Analysis and Integration Tools																																				
Cost (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost																																
SATCOM Ops Analysis and Integration Tools		1.873	2.388	2.342	2.418	2.409	2.443	2.589	TBD	TBD																																
RDT&E Articles Qty		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A																																
<p><b>A. <u>Mission Description and Budget Item Justification:</u></b> The current focus of the Satellite Communications (SATCOM) operations analysis and integration effort is the development of the Joint Satellite Communications Architecture Planning and Evaluation (J-SCAPE) Tool Set. J-SCAPE is required to provide decision-makers with the means to focus the ongoing modernization of SATCOM assets to transform current systems and choose the best architectural alternative for the 21<sup>st</sup> century SATCOM infrastructure. The J-SCAPE tool set is also required to support the planning and evaluation necessary to maximize all four of the operational concepts of JV 2020-dominant maneuver, precision engagement, focused logistics, and full dimensional protection. Currently, there is no effective, efficient capability to plan and evaluate the ability of current and future SATCOM architectures to meet the Combatant Commands' requirements. The J-SCAPE tool set mission recognizes the importance of information superiority to each of these operational concepts. Specifically, the J-SCAPE toolset will provide the capability to efficiently and accurately evaluate a set of communication requirements -- captured in the form of a scenario -- against a set of SATCOM resources. It will quantify supportability in terms of connectivity and capacity, emphasizing SATCOM parameters such as link budgets, including fading because of rain and scintillation, bit error rates, satellite processing, and crosslinks. Other measures of effectiveness include link availability, delay, resistance to jamming, and intercept or signals exploitation. When fully operational, the J-SCAPE toolset will be used by the Joint Staff, Combatant Commands, their components, other joint organizations, satellite systems program offices, and earth terminal program offices. The Services will use this tool set to assess the adequacy of SATCOM systems to support their assigned missions, evaluate operational plans, define SATCOM-related operational requirements, and provide operational input to the acquisition process.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>FY 2003</u></th> <th style="text-align: left;"><u>FY 2004</u></th> <th style="text-align: left;"><u>FY 2005</u></th> <th style="text-align: left;"><u>Description</u></th> </tr> </thead> <tbody> <tr> <td>0.953</td> <td>1.101</td> <td>1.050</td> <td>Software Development/Software Functionality</td> </tr> <tr> <td>0.320</td> <td>0.330</td> <td>0.340</td> <td>Program Management</td> </tr> <tr> <td>0.100</td> <td>0.100</td> <td>0.100</td> <td>Verification and Validation</td> </tr> <tr> <td>0.000</td> <td>0.150</td> <td>0.150</td> <td>Configuration Management</td> </tr> <tr> <td>0.250</td> <td>0.362</td> <td>0.350</td> <td>Contract Engineering &amp; Technical Support (non-FFRDC)</td> </tr> <tr> <td><u>0.250</u></td> <td><u>0.345</u></td> <td><u>0.352</u></td> <td>Contract Engineering &amp; Technical Support (FFRDC)</td> </tr> <tr> <td>1.873</td> <td>2.388</td> <td>2.342</td> <td>Total</td> </tr> </tbody> </table>											<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Description</u>	0.953	1.101	1.050	Software Development/Software Functionality	0.320	0.330	0.340	Program Management	0.100	0.100	0.100	Verification and Validation	0.000	0.150	0.150	Configuration Management	0.250	0.362	0.350	Contract Engineering & Technical Support (non-FFRDC)	<u>0.250</u>	<u>0.345</u>	<u>0.352</u>	Contract Engineering & Technical Support (FFRDC)	1.873	2.388	2.342	Total
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**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

Exhibit R-2a, RDT&E Project Justification			Date: February 2004		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NAME AND NUMBER			
RDT&E, Defense Wide, Joint Staff 0400 / BA7	0303149J	C4 for the Warrior (C4IFTW) - SATCOM Ops Analysis and Integration Tools			
<p>B. <u>Accomplishments/Planned Program:</u></p> <p><u>FY 2003 Accomplishments.</u> Built on the FY 2002 prototyping efforts by adding a nodal diagram display/edit capability for network definition, expanding results reporting features, adding validation and format checking, supporting additional external systems interfaces, and expanding usability features to support analysis of additional SATCOM systems. Implemented a J-SCAPE UHF Planning Tool to address the UHF SATCOM planning needs of Combatant Commanders, Global SATCOM Support Center (GSSC), and Regional SATCOM Support Centers (RSSCs).</p> <p><u>FY 2004 Planned Program.</u> Expand J-SCAPE to support analysis of additional SATCOM systems including the anticipated Transformational SATCOM (T-SAT) system. This phase also builds upon the FY 2003 J-SCAPE UHF Planning Tool and integrates the tool into an integrated UHF SATCOM mission planning system for use by Combatant Commanders, GSSC, and RSSC planners. Design and implement interfaces to communications planning and management systems to acquire near real-time configuration and status information, and import such information as satellite resource data. Participate in military exercises and operations to demonstrate capabilities of the J-SCAPE system to the warfighter.</p> <p><u>FY 2005 Planned Program.</u> Building on FY 2004 software by adding a Mobile User Objective System (MUOS) analysis capability and refining the T-SAT configuration/model. In addition, this phase implements scenario development tools such as the definition/use of aggregate “force packages” to speed scenario development, and implementation of a web-based commercial SATCOM planning tool suitable for use by Combatant Commanders, GSSC, and RSSC planners.</p>					
C. <u>Other Program Funding Summary:</u> N/A.					
D. <u>Acquisition Strategy/ Schedule Profile:</u>					
(Fiscal Qtr)	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>		
	1 2 3 4	1 2 3 4	1 2 3 4		
Contract Award * -- Jul 97					
IOC **		X			
FOC (To be determined)					
<p>* SAIC Inc., under competitively awarded delivery order type support contract awarded January 2003. Aerospace Corporation provides FFRDC support. After program definition, prototyping, risk-reduction phases, and engineering development (just prior to IOC), J-SCAPE will be openly competed based on fully defined requirement and a mature software design.</p> <p>** J-SCAPE acquisition strategy is to follow a proof-of-concept phase with a series of prototypes to help further define the program, continue to capture and refine requirements and implement risk-reduction measures. IOC will be achieved following a final engineering development phase with formalized software design and planning on use of commercial off the shelf software tools, as much as feasible.</p>					

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-3, Project Cost Analysis**

Exhibit R-3, Project Cost Analysis										Date: February 2004		
APPROPRIATION/BUDGET ACTIVITY:				PROGRAM ELEMENT:						PROJECT NAME:		
RDT&E, Defense Wide, Joint Staff 0400 / BA 7				0303149J						C4IFTW – SATCOM Ops Analysis and Integration Tool		
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY03 Cost	FY03 Award Date	FY04 Cost	FY04 Award Date	FY05 Cost	FY05 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Definition & Proof of Concept										TBD	TBD	
Software Prototype Development	CPFF	SAIC, Aerospace		.953		1.101	TBD	1.081	TBD	TBD	TBD	
Program Management	CPFF	SAIC	1.705	.320		.330	TBD	.324	TBD	TBD	TBD	
COTS Hardware and Software	CPFF	SAIC	.300	.0	TBD	.0		.0		TBD	TBD	
<b>Subtotal</b>			<b>2.005</b>	<b>1.273</b>		<b>1.431</b>		<b>1.405</b>		<b>TBD</b>	<b>TBD</b>	
Verification & Validation		DISA	.100	.100		.100		.100		TBD	TBD	
<b>Subtotal T&amp;E</b>			<b>.100</b>	<b>.100</b>		<b>.100</b>		<b>.100</b>		<b>TBD</b>	<b>TBD</b>	
Independent Cost Estimate (ICE) (FFRDC)	CPFF	Aerospace, AF Cost Analysis Agency	0	0		0		0		TBD	TBD	
Contract Engineering and Technical Support	CPFF	SAIC	.361	.250	TBD	.362	TBD	.352	TBD	TBD	TBD	
Contract Eng. & Tech. Support (FFRDC)	CPFF	Aerospace	.330	.250	TBD	.345	TBD	.335	TBD			
Configuration Management	CPFF			.150		.150	TBD	.150	TBD			
Congressional non programmatic rescission												
<b>Subtotal Management</b>			<b>.691</b>	<b>.500</b>		<b>.857</b>		<b>.837</b>		<b>TBD</b>	<b>TBD</b>	
<b>Total Cost</b>			<b>2.796</b>	<b>1.873</b>		<b>2.388</b>		<b>2.342</b>		<b>TBD</b>	<b>TBD</b>	
Remarks: All awards to SAIC under competitively won umbrella support contract, awarded Jul 97.												

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

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

Exhibit R-2, RDT&E Budget Item Justification									Date: February 2004	
APPROPRIATION/BUDGET ACTIVITY: RDT&E, Defense Wide, Joint Staff 0400 / BA7					R-1 ITEM NOMENCLATURE: 194 PE: 0902298J Management Headquarters – Various					
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost
Total PE Cost		16.404	28.921	22.421	11.599	11.831	12.066	12.292		
Joint Warfighting Capabilities Assessment (JWCA)		10.282	10.398	9.407	9.716	9.888	10.085	10.274		
Joint Operational Concept/Architecture (JOC/JOA)		.291	0.000	0.000	0.000	0.000	0.000	0.000		
Joint Staff Information Network (JSIN)		1.520	1.896	1.829	1.883	1.943	1.981	2.018		
Joint Staff Knowledge Management Program (JSKMP)		.350	.318	0.000	0.000	0.000	0.000	0.000		
Collaborative Force-Building Analysis, Sustainment & Transportation (CFAST)		3.961	16.309	11.185	0.000	0.000	0.000	0.000		
<p>A. <u>Mission Description and Budget Item Justification:</u> This program element contains five distinct efforts --Functional Capability Board Working Groups (FCBWG), Joint Staff Information Network (JSIN), Joint Staff Knowledge Management Program (JSKMP), Joint Operational Concept/Architecture (JOC/JOA) program and the Collaborative Force-Building Analysis, Sustainment and Transportation (CFAST) tool.</p> <p>FCB WGs assess joint warfighting across the following functional areas: Force Application; Protection; Focused Logistics; Battlespace Awareness; Command and Control; and Net Centric. Each FCB WG, operating under the leadership and control of the larger FCB, support the JROC and Chairman's Title X responsibilities. The FCBs are led and directed by a GO/FO and are responsible for the organization, analysis and prioritization of joint warfighting capability needs proposals within assigned functional areas as well as other JROC directed tasks. FCB WG assessments examine key relationships between warfighting capabilities and seek to identify opportunities for improving warfighting effectiveness. The FCB WGs are composed of warfighting and functional experts from the Joint Staff, Combatant Commands, Services, Office of the Secretary of Defense, and other DoD and non-DoD agencies as required. The program growth between FY 2004 and FY 2005 continued the support of CJCS-directed evolution of the Joint Requirements Oversight Council (JROC) required to meet congressional expectations of improving joint integration of force capability development efforts. The recent implementation of the new Joint Capabilities and Integration and Development System (JCIDS) moves the Department from a</p>										



**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

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

Exhibit R-2, RDT&E Budget Item Justification		Date: February 2004
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<p>system to a capability-based approach to identify improvements to existing capabilities and to develop new warfighting capabilities. The FCB WGs are critical players within JCIDS and are heavily involved in the development of their joint functional concepts and integrated architectures. The increased and sustained funding enables the JROC to continue to execute its Title X responsibilities. In FY 2003, the JROC directed the FCBs to conduct numerous assessments including the development of joint operational, functional and enabling concepts. The FCB WGs are also heavily engaged in the implementation of the new Planning, Programming, Budgeting and Execution process implemented in FY 2003. Their participation has been critical to support the joint warfighting community.</p> <p>Joint Staff Information Network (JSIN) is the Joint Staff's primary "weapon system." It consists of a classified and an unclassified local area network. The classified TOP SECRET network has access to DoD-wide SECRET SIPRNET. This interface is controlled via a comprehensive system of security checks and guards. The unclassified network provides access to the NIPRNET and Internet. Both networks host our connection to the Defense Message System (DMS). All networks run the standard Microsoft Office suite of programs. Most day-to-day staff work is conducted on the classified network. Our premier application is a highly customized software program called the Joint Staff Action Processing (JSAP) application. This application was developed by one of our information technology (IT) support contractors (Dyncorp) and codifies our processes for creating, routing, reviewing, approving, and archiving staff packages in electronic form. JSAP has numerous commercial counterparts and is being marketed by Dyncorp to other Combatant Commands and Services. Current direction states any commercially procured software requiring modification must be acquired with RDT&amp;E funds. The Office of the Chief Information Officer (OCIO) envisions enhancing JSAP to keep the application current with IT initiatives including Public Key Infrastructure, collaborative tools, and web-based enhancements. The Joint Staff's core processes and products are knowledge-based.</p> <p>The Joint Staff Knowledge Management Program (JSKMP) is relevant across the spectrum of the Joint Staff's missions. The JSKMP must be sufficiently robust to enable execution of the Joint Staff's many processes, and sufficiently flexible to retain utility as re-engineering improves our processes. The JSKMP will enable the staff to collect, analyze, process, and transform information in order to improve staff support to the CJCS, to formulate new joint concepts, doctrine, organizational designs and materiel requirements, and to manage the command's business processes. It will focus on the automation of a major portion of the Joint Staff's work and increase the availability of information created and used by the staff. The information and knowledge contained in the JSKMP must be available in the right format at the right time and place to a wide variety of users across the Joint Community and DoD.</p> <p>The CFAST is a candidate system to meet Secretary of Defense guidance to compress operational planning, and make plans more adaptive. CFAST is a collaborative tool for the operational planner that will help shorten the deliberate and crisis action planning timelines. CFAST is a Time-Phased Force Deployment Data building and analysis suite of applications that utilizes the same data as Joint Operation Planning and Execution System applications, but operates and functions independently of JOPES and Global Command and Control System. Guided by Joint Vision 2020 and the 2002 Contingency Planning Guidance, CFAST will enable decision superiority through advanced information sharing and collaboration. CFAST</p>		

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**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

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

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<p>development and deployment will be transferred from the Joint Staff upon designation of an Executive Agent; selection of the CFAST Executive Agent is planned in the FY 2004-2005 timeframe. Transformation to future warfighting capabilities requires enhanced battlespace awareness, timely information exchange, and network-centric forces to support critical Joint, Allied, and Coalition C2 nodes. These programs are in Budget Activity 7 - Operational Systems Development because it supports currently employed systems and training activities.</p>																						
<p>B. <u>Program Change Summary:</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="text-align: center;"><u>FY 2003</u></th> <th style="text-align: center;"><u>FY 2004</u></th> <th style="text-align: center;"><u>FY 2005</u></th> </tr> </thead> <tbody> <tr> <td>FY 2004 Budget Estimate</td> <td style="text-align: right;">12.413</td> <td style="text-align: right;">18.943</td> <td style="text-align: right;">17.278</td> </tr> <tr> <td>Internal Reprogramming – CFAST Acceleration</td> <td style="text-align: right;">3.991</td> <td style="text-align: right;">9.900</td> <td style="text-align: right;">5.200</td> </tr> <tr> <td>Internal Reprogramming</td> <td></td> <td style="text-align: right;">.078</td> <td style="text-align: right;">(.057)</td> </tr> <tr> <td><b>FY 2005 Budget Estimate - Total</b></td> <td style="text-align: right;"><b>16.404</b></td> <td style="text-align: right;"><b>28.921</b></td> <td style="text-align: right;"><b>22.421</b></td> </tr> </tbody> </table>		<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	FY 2004 Budget Estimate	12.413	18.943	17.278	Internal Reprogramming – CFAST Acceleration	3.991	9.900	5.200	Internal Reprogramming		.078	(.057)	<b>FY 2005 Budget Estimate - Total</b>	<b>16.404</b>	<b>28.921</b>	<b>22.421</b>		
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<p>C. <u>Other Program Funding Summary:</u> N/A.</p>																						
<p>D. <u>Acquisition Strategy:</u> JSKMP information included below, JSIN and JWCA information included in individual project justification. Joint Staff Office of the Chief Information Officer (JS OCIO) will evaluate candidates in conjunction with the staff and our support contractor. Identified enhancements will be integrated into JSIN via contract task orders issued to our support contractor. We envision periodic software upgrades driven by contractor upgrades, version releases, and emergency-fix releases to the various COTS applications integrated within the Joint Staff Action Processing (JSAP) application.</p>																						
<p>E. <u>Schedule Profile:</u> JSKMP and JSIN information are included in individual project justification. JSKMP RDT&amp;E funding line was new to this program element in FY 2003. RDT&amp;E will be spent during various quarters of each fiscal year. FY 2003-2005 funding for CFAST supports the development, testing, and integration of several key tools and applications to be used in conjunction with proven tools already in use within the Joint Operation Planning and Execution System (JOPES). CFAST tools to be further developed, tested, and integrated with the existing Joint Flow and Analysis System for Transportation (JFAST) and Sustainment Generator (SUSGEN) include: The Force Builder – a tool to automate the design and building of TPFDD files for deliberate planning. Includes a capability to automatically develop Combat Service Support required to support a deployed operational force; The Plan Balancer – a transportation tool that automatically assigns movement data to TPFDD records based on coordinated understanding of the Defense Transportation System (DTS) requirements for operation; The Personnel Generator – a casualty predictor linked to medical and personal services force generator to include retrograde of casualties and inbound flow of replacements. Funding will also expand the Joint Reception Staging Onward-Movement and Integration (JRSOI), database. This database includes routing capabilities of the Theater Transportation System, Port of Embarkation (POE) capacities, road, rail, and assembly area requirements for reception, latrines, bath, laundry, and billeting.</p>																						

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

Exhibit R-2a, RDT&E Project Justification									Date: February 2004																	
APPROPRIATION/BUDGET ACTIVITY:				PROGRAM ELEMENT		PROJECT NAME AND NUMBER:																				
RDT&E, Defense Wide, Joint Staff 0400 / BA 7				0902298J		Management Headquarters – Joint Warfighting Capabilities Assessment (JWCA)																				
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost																
		10.282	10.398	9.407	9.716	9.888	10.085	10.274																		
<p>A. Functional Capability Board Working Groups (FCBWG) assess joint warfighting across the following functional areas: Force Application; Protection; Focused Logistics; Battlespace Awareness; Command and Control; and Net Centric. Each FCBWG, operating under the leadership and control of the larger FCB, support the JROC and Chairman’s Title X responsibilities. The FCBs are led and directed by a General Officer/Flag Officer (GO/FO) and are responsible for the organization, analysis and prioritization of joint warfighting capability needs proposals within assigned functional areas as well as other JROC directed tasks. FCBWG assessments examine key relationships between warfighting capabilities and seek to identify opportunities for improving warfighting effectiveness. The FCBWGs are composed of warfighting and functional experts from the Joint Staff, Combatant Commands, Services, Office of the Secretary of Defense, and other DoD and non-DoD agencies as required. The program growth between FY 2004 and FY 2005 continued the support of CJCS-directed evolution of the Joint Requirements Oversight Council (JROC) required to meet congressional expectations of improving joint integration of force capability development efforts. The recent implementation of the new Joint Capabilities and Integration and Development System (JCIDS) moves the Department from a system to a capability-based approach to identify improvements to existing capabilities and to develop new warfighting capabilities. The FCB WGs are critical players within JCIDS and are heavily involved in the development of their joint functional concepts and integrated architectures. The increased and sustained funding enables the JROC to continue to execute its Title X responsibilities.</p> <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>FY 2003</u></th> <th style="text-align: left;"><u>FY 2004</u></th> <th style="text-align: left;"><u>FY 2005</u></th> <th style="text-align: left;"><u>Description</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: right;">8.413</td> <td style="text-align: right;">8.774</td> <td style="text-align: right;">7.761</td> <td>Analysis &amp; Advisory Support Contracted Studies (non-FFRDC)</td> </tr> <tr> <td style="text-align: right;"><u>1.869</u></td> <td style="text-align: right;"><u>1.624</u></td> <td style="text-align: right;"><u>1.646</u></td> <td>Analysis &amp; Advisory Support Contracted Studies (FFRDC)</td> </tr> <tr> <td style="text-align: right;">10.282</td> <td style="text-align: right;">10.398</td> <td style="text-align: right;">9.407</td> <td>Total</td> </tr> </tbody> </table>											<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Description</u>	8.413	8.774	7.761	Analysis & Advisory Support Contracted Studies (non-FFRDC)	<u>1.869</u>	<u>1.624</u>	<u>1.646</u>	Analysis & Advisory Support Contracted Studies (FFRDC)	10.282	10.398	9.407	Total
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**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

Exhibit R-2a, RDT&E Project Justification		Date: February 2004												
APPROPRIATION/BUDGET ACTIVITY:	PROGRAM ELEMENT	PROJECT NAME AND NUMBER:												
RDT&E, Defense Wide, Joint Staff 0400 / BA 7	0902298J	Management Headquarters – Joint Warfighting Capabilities Assessment (JWCA)												
<p><u>FY 2004/FY2005 Planned Program.</u> The FCB WGs will continue developing their joint functional concepts, any directed enabling concepts and integrated architectures to support the new capability-based approach. The FCB WGs will support, review and participate in studies for the Strategic Planning Guidance and the Joint Planning Guidance. Concurrently, the FCB WGs will continue to play a key role in enabling the JROC's transformation and evolution through their analysis, interaction and work with the Combatant Commands priority joint warfighting issues.</p>														
<p>C. <u>Other Program Funding Summary:</u></p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY 2003</u></th> <th style="text-align: center;"><u>FY 2004</u></th> <th style="text-align: center;"><u>FY 2005</u></th> <th style="text-align: center;"><u>To Complete</u></th> <th style="text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>O&amp;M Defense-Wide</td> <td style="text-align: center;">6.514</td> <td style="text-align: center;">6.843</td> <td style="text-align: center;">6.461</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table>				<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Complete</u>	<u>Total Cost</u>	O&M Defense-Wide	6.514	6.843	6.461	N/A	N/A
	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Complete</u>	<u>Total Cost</u>									
O&M Defense-Wide	6.514	6.843	6.461	N/A	N/A									
<p>D. <u>Acquisition Strategy:</u> This program represents a continuing level of effort supporting a wide range of FCB WG studies to support the JROC process. The deliverables in each study reflect the analysis required to assist decision makers as they examine the relationships between warfighting capabilities/interactions and identify opportunities for improving warfighting effectiveness.</p>														
<p>E. <u>Schedule Profile:</u> N/A.</p>														

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-3, Project Cost Analysis**

Exhibit R-3, Project Cost Analysis										Date: February 2004		
APPROPRIATION/BUDGET ACTIVITY: RDT&E, Defense Wide, Joint Staff 0400 / BA 7				PROGRAM ELEMENT: 0902298J – Management Headquarters					PROJECT NAME: JWCA Studies			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY03 Cost	FY03 Award Date	FY04 Cost	FY04 Award Date	FY05 Cost	FY05 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Contracted Studies	C/FP/MIPR	TBD	8.687	8.413	Var	8.774	Var	7.761	TBD	Cont	TBD	TBD
<b>Subtotal Support</b>			<b>8.687</b>	<b>8.413</b>		<b>8.774</b>		<b>7.761</b>		<b>Cont</b>	<b>TBD</b>	<b>TBD</b>
Remarks: JWCA studies are not management organizations. The studies support the Joint Staff directorates and Combatant Commands and are executed IAW directives received from the JROC. JWCA studies evaluate warfighting and supporting area assessments vice developing deliverable systems.												
FFRDC Studies	Reqn	TBD	1.880	1.869	Var	1.624	Var	1.646	TBD	Cont	TBD	TBD
Congressional non-programmatic rescission												
<b>Subtotal Support</b>			<b>1.880</b>	<b>1.869</b>		<b>1.624</b>		<b>1.646</b>		<b>Cont</b>	<b>TBD</b>	<b>TBD</b>
Remarks: JWCA studies are not management organizations. The studies support the Joint Staff directorates and Combatant Commands and are executed IAW directives received from the JROC. JWCA studies evaluate warfighting and supporting area assessments vice developing deliverable systems.												
<b>Total Cost</b>			<b>10.567</b>	<b>10.282</b>		<b>10.398</b>		<b>9.407</b>				

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

Exhibit R-2a, RDT&E Project Justification							Date: February 2004			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NAME AND NUMBER			
RDT&E, Defense Wide, Joint Staff 0400 / BA 7			0902298J				Joint Staff Information Network (JSIN)			
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost
JSIN		1.520	1.896	1.829	1.883	1.943	1.981	2.018		
<p>A. <u>Mission Description and Budget Item Justification:</u> The Joint Staff Information Network (JSIN) is the Joint Staff's primary "weapon system." It consists of a classified and an unclassified local area network. The classified TOP SECRET network has access to DoD-wide SECRET SIPRNET. This interface is controlled via a comprehensive system of security checks and guards. The unclassified network provides access to the NIPRNET and Internet. Both networks host our connection to the Defense Message System (DMS) currently being implemented as a replacement for the legacy AUTODIN system. All networks run the standard Microsoft Office suite of programs. Most day-to-day staff work on the staff is conducted on the classified network. Our premier application is a highly customized software program called the Joint Staff Action Processing (JSAP) application. This application was developed by one of our information technology (IT) support contractors (Computer Sciences Corporation (CSC)) and codifies our processes for creating, routing, reviewing, approving, and archiving staff packages in electronic form. JSAP has numerous commercial counterparts and is being marketed by CSC to other Combatant Commands and Services. Current direction states any commercially procured software requiring modification must be acquired with RDT&amp;E funds. The Office of the Chief Information Officer (OCIO) envisions enhancing JSAP to keep the application current with IT initiatives including PKI, collaborative tools, and web-based enhancements. FY 2003–2007 JSIN program increase reflects realignment of funding as a result of the change in business practice for the Joint Staff Action Processing (JSAP) application. When funding was originally realigned for JSIN, it was with the intention of replacing JSAP with a modified COTS and upgrading every 4 years. Under the new business strategy, the current JSAP will be retained, but reengineered/enhanced to migrate to promising future capabilities to include collaboration tools, knowledge management, and information portals. This realignment does not represent program growth.</p> <p>B. <u>Accomplishments/Planned Program:</u></p> <p><u>FY 2003 Accomplishments:</u> Continued improving external coordination to the Services, Joint Agencies, and other outside DoD agencies. Migration to Oracle databases as the standard Joint Staff database was completed. JSAP work began on investigating a new Business Intelligence BI Tool to improve knowledge enhancements. Work continued on developing portal methods to improve efficiency for deployed/TDY personnel, but was placed on hold due to lack of funding for required skill set and requirement definition. A COOP action plan was developed. For the Joint Staff to perform under COOP, full bunkering of JSAP Data will be implemented with the DoD Continuity of Operation Information Network (DCIN) in FY 2004. Work was completed on the migration of the Electronic Filing System to the Document Management/Records Management Archive (DM/RMA) server and is now referred to as the JS Archives. A JSAP Business Plan was completed and in addition a JSAP Architecture Study was completed to plan potential future</p>										

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-2a, RDT&E Budget Item Justification**

Exhibit R-2a, RDT&E Project Justification		Date: February 2004												
<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>PROGRAM ELEMENT</b>	<b>PROJECT NAME AND NUMBER</b>												
RDT&E, Defense Wide, Joint Staff 0400 / BA 7	0902298J	Joint Staff Information Network (JSIN)												
<p>modifications.</p> <p><u>FY 2004 Planned Program:</u> Investigation work will begin on web enhanced outlook and web enabled Archive Tracking System of developing a Web Portal for JSAP. In addition, the knowledge management capability of JSAP will be improved to include Ad-Hoc Reporting and generation of new reports through enhanced Oracle Business Intelligence tool use. The Oracle migration started in FY 2003 lays the groundwork for investigation and completion of a prototype/study for collaboration tools in FY 2004. In FY 2004 JSAP will incorporate investigate use of Public Key Infrastructure and Multi-level security capability. Finally, five studies will be completed to map the way ahead for JSAP. These studies will include Document Collaboration, Data Warehousing, Knowledge Discovery and Mapping, Distributed Workflow, and Document/Records Management Enhancements. Work will also begin on the Staff Integrated Document Command and Control System (SIDCCS) interface project being developed by OSD for passing taskers between OSD and the Joint Staff. The work will require a skill set not currently in the contract. In addition, JSAP will begin planning for potential replacement for the current DoccuPACT/iRIMS archiving system as a result of DoccuPACT maintenance support becoming an issue. In addition over 20 identified user requirements/requests to improve efficiency will be incorporated into the two releases. A major enhancement to be incorporated will be to transition from TIF file format for scanning to a PDF format for all scanned products within JSAP. This will enable the Joint Staff to be in compliance with new standards being developed by the National Archives and Records Administration (NARA).</p> <p><u>FY 2005 Planned Program:</u> JSAP will begin work on a new DoccuPACT/iRIMS replacement. JSAP will begin work on investigating more open systems architecture or possibly JSAP replacement of components with Commercial Off-The-Shelf (COTS) products. In addition, the recompile for either a JSAP replacement workflow product will begin or a new support contract statement of work will be developed. A full COOP recovery and failover will be tested after the implementation of DCIN in FY 2004. The JSAP IT Business Plan and Architecture Studies will be updated early FY 2005 to ensure information is enclosed in the new Statement of Work.</p>														
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"><u>C. Other Program Funding Summary:</u></td> <td style="width: 15%; text-align: center;"><u>FY 2003</u></td> <td style="width: 15%; text-align: center;"><u>FY 2004</u></td> <td style="width: 15%; text-align: center;"><u>FY 2005</u></td> </tr> <tr> <td style="padding-left: 20px;">O&amp;M, Defense-Wide</td> <td style="text-align: center;">0.729</td> <td style="text-align: center;">0.755</td> <td style="text-align: center;">0.782</td> </tr> <tr> <td style="padding-left: 20px;">Procurement, Defense-Wide</td> <td style="text-align: center;">0.200</td> <td style="text-align: center;">0.350</td> <td style="text-align: center;">0.550</td> </tr> </table>			<u>C. Other Program Funding Summary:</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	O&M, Defense-Wide	0.729	0.755	0.782	Procurement, Defense-Wide	0.200	0.350	0.550
<u>C. Other Program Funding Summary:</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>											
O&M, Defense-Wide	0.729	0.755	0.782											
Procurement, Defense-Wide	0.200	0.350	0.550											
<p><u>D. Acquisition Strategy:</u> JSAP will continue to be upgraded with required enhancements. JS OCIO will evaluate candidates in conjunction with the staff and our support contractor. Identified enhancements will be integrated into JSIN via contract task orders issued to our support contractor. We envision periodic software upgrades driven by contractor upgrades, version releases, and emergency-fix releases to the various COTS applications integrated within JSAP.</p>														
<p><u>E. Schedule Profile:</u> RDT&amp;E will be spent throughout various quarters of each fiscal year.</p>														

**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit R-3, Project Cost Analysis**

Exhibit R-3, Project Cost Analysis										Date: February 2004		
APPROPRIATION/BUDGET ACTIVITY: RDT&E, Defense Wide, Joint Staff 0400 / BA 7				PROGRAM ELEMENT: 0902298J – Management Headquarters				PROJECT NAME: Joint Staff Information Network (JSIN)				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY03 Cost	FY03 Award Date	FY04 Cost	FY04 Award Date	FY05 Cost	FY05 Award Date	Cost To Complete	Total Cost	Target Value of Contract
COTS S/W Mod, Integrate, Engineer, & Test	T&M	Computer Sciences Corporation (CSC), Chantilly, VA	1.503	1.554	10/1/02	1.572	09/03	1.634	09/04	TBD	TBD	TBD
Internal transfers												
Internal reprogramming												
<b>Subtotal Product Development</b>			<b>1.503</b>	<b>1.554</b>		<b>1.572</b>		<b>1.634</b>		<b>TBD</b>	<b>TBD</b>	<b>TBD</b>
Remarks: JSIN realigned Operations and Maintenance funding to Research and Development funding as a result of Information Technology budgeting policy clarification and to comply with House Appropriations Committee guidance (Report 106-244). FY 2003 and beyond RDT&E reprogramming are the result of the change in business strategy for the Joint Staff Action Processing (JSAP) application. The original strategy was to replace JSAP with a modified COTS and upgrade every 4 years. Under the new business strategy, the current JSAP will be retained, but reengineered and enhanced to migrate to promising future capabilities to include collaboration tools, knowledge management, and information portals.												
Congressional non-programmatic rescission				(.034)		(.026)		(.005)				
<b>Subtotal Support</b>			<b>1.503</b>	<b>1.520</b>		<b>1.520</b>		<b>1.629</b>				
Remarks:												
<b>Total Cost</b>			<b>1.503</b>	<b>1.520</b>		<b>1.546</b>		<b>1.629</b>				



**JOINT STAFF**  
**FY 2005 Budget Estimates**  
**Research, Development, Test, and Evaluation (RDT&E), Defense-Wide**

**Exhibit PB-15, Advisory and Assistance Service**

(\$ in Millions)

**RDT&E, D-W**

<b>Category</b>	<b>FY 2003</b>	<b>FY 2004</b>	<b>FY 2005</b>
1. Management & Professional Support Services			
FFRDC Work	0	0	0
Non-FFRDC Work	<u>1.873</u>	<u>1.888</u>	<u>1.842</u>
Subtotal	1.873	1.888	1.842
2. Studies, Analysis, and Evaluations			
FFRDC Work	1.869	1.624	1.646
Non-FFRDC Work	<u>73.890</u>	<u>88.194</u>	<u>88.469</u>
Subtotal	75.759	89.818	90.115
3. Engineering and Technical Services			
FFRDC Work	3.961	16.209	11.085
Non-FFRDC Work	<u>11.809</u>	<u>8.261</u>	<u>6.824</u>
Subtotal	15.770	24.470	17.909
4. Totals			
FFRDC Work	5.830	17.833	12.731
Non-FFRDC Work	<u>87.572</u>	<u>98.343</u>	<u>97.135</u>
	93.402	116.176	109.866

FY 2004 and FY 2005 increase in FFRDC is due to SecDef add for Collaborative Force-building, Analysis, Sustainment, and Transportation (CFAST) Tool.