

UNCLASSIFIED

PE NUMBER: 0604740F

PE TITLE: Integrated Command & Control Applications

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2007
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604740F Integrated Command & Control Applications
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Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	27.976	23.664	0.189	0.179	0.184	0.207	0.211	0.215	Continuing	TBD
2523 Product Lines	0.161	0.166	0.189	0.179	0.184	0.207	0.211	0.215	Continuing	TBD
2524 Reuse and Component Support	27.815	23.498	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

The goal of the Integrated Command & Control Applications (IC2A) program is to reduce the development time, costs, and risks associated with the acquisition and development of an enterprise oriented Command & Control (C2) capability by defining a reference architecture to enhance a common application use and reuse.

Project 2523, Product Lines, minimizes development cost and time by defining a C2 architecture approach consistent with net-centric principles and guidance to ensure compliance and interoperability using standards based service oriented architecture components. The use of web services as a common product line on a C2 reference architecture improves software quality, interoperability and reliability while reducing fielding times and overall life cycle costs.

Project 2524, Reuse and Component Support (RCS), identifies, develops, tests and provides re-useable software components and products to the IC2A program and to other programmed Systems of Record. The RCS project is developing re-useable software components based current on Service Oriented Architectures and Web Services that will allow the AF to achieve a net-centric operations and warfare capability.

The IC2A program has determined that over 80% of the functionality of any command center software is common to all command centers for programs using product line concepts based on a C2 reference architecture.

This program is categorized as Budget Activity (BA) 5 to reflect a program in System Demonstration and Development (SD&D).

(U) B. Program Change Summary (\$ in Millions)

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	18.872	0.167	0.188	0.178
(U) Current PBR/President's Budget	27.976	23.664	0.189	0.179
(U) Total Adjustments	9.104	23.497		
(U) Congressional Program Reductions		-0.013		
Congressional Rescissions		-0.090		
Congressional Increases	9.855	23.600		
Reprogrammings				
SBIR/STTR Transfer	-0.751			

(U) Significant Program Changes:

In FY06 and FY07, the increases between the previous and current President's budgets for project 2524 were due to Congressional adds.

Exhibit R-2a, RDT&E Project Justification

DATE
February 2007

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0604740F Integrated Command & Control Applications			PROJECT NUMBER AND TITLE 2523 Product Lines		
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
2523 Product Lines	0.161	0.166	0.189	0.179	0.184	0.207	0.211	0.215	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

The software architecture, developed by the Product Lines Project, forms a vital component of the Integrated Command and Control Applications (IC2A) program by providing pre-defined reference architecture as a foundation for a DoD enterprise C2 capability. Using rapid prototyping techniques, a contractor can quickly tailor a reference architecture-based C2 component to the warfighter's needs and deliver an integrated, combat-ready system. All product lines and components are based on net-centric principles, service oriented architecture and Core Enterprise Services to ensure joint compliance and interoperability; make maximum use of open system architectures, industry standards, Commercial off-the-shelf (COTS) products, and government furnished equipment; and incorporate multilevel security (MLS) features. This effort ensures that components and systems are developed with a view of operating within a C2 enterprise instead of stovepipe functionality. Contractors develop and maintain a common integrated infrastructure in a collaborative, synergistic environment using validated, mature software engineering processes to help ensure the quality of the designs and components. Reference architecture based designs and tested software components reduce development costs, risks and time for the user. New technologies, capabilities, and incremental developments are assessed and integrated into the architecture and components design as part of the product line development process to minimize any impact to the user.

This program is categorized as Budget Activity (BA) 5 to reflect a program in System Demonstration and Development (SD&D).

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Qualify components for product lines/program management support	0.161	0.166	0.189	0.179
(U) Total Cost	0.161	0.166	0.189	0.179

(U) C. Other Program Funding Summary (\$ in Millions)

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) Not applicable										

(U) D. Acquisition Strategy

All major contracts within PE 0604740F were awarded after full and open competition.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE
February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)			0604740F Integrated Command & Control Applications								2523 Product Lines			
<u>(U) Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
<u>(U) Product Development</u>														
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
<u>(U) Support</u>														
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
<u>(U) Test & Evaluation</u>														
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
<u>(U) Management</u>														
Program Office Support	ITSP	ESC Hanscom AFB, MA		0.161	Oct-05	0.166	Oct-06	0.189	Oct-07	0.179	Oct-08	Continuing	TBD	TBD
Subtotal Management			0.000	0.161		0.166		0.189		0.179		Continuing	TBD	TBD
Remarks:														
<u>(U) Total Cost</u>			0.000	0.161		0.166		0.189		0.179		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2007

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604740F Integrated Command & Control Applications

PROJECT NUMBER AND TITLE

2523 Product Lines

IC2A Schedule – Product Lines

As of: 2 JAN 07

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
PROGRAM MANAGEMENT SUPPORT								
	→							

Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2007

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604740F Integrated Command & Control Applications

PROJECT NUMBER AND TITLE

2523 Product Lines

(U) Schedule Profile

FY 2006

FY 2007

FY 2008

FY 2009

(U) Qualify components for product lines/program management support

1-4Q

1-4Q

1-4Q

1-4Q

Exhibit R-2a, RDT&E Project Justification

DATE
February 2007

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0604740F Integrated Command & Control Applications			PROJECT NUMBER AND TITLE 2524 Reuse and Component Support		
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
2524 Reuse and Component Support	27.815	23.498	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

Reuse and Component Support (RCS) identifies, develops, tests and provides reuseable software components and products to the IC2A program and to other programmed Systems of Record. The RCS project is developing reuseable software components based on Service Oriented Architectures and Web Services that will allow the AF to achieve a netcentric operations and warfare capability.

The President's budget for FY08 has no requirements for this project.

This program is categorized as Budget Activity (BA) 5 to reflect a program in System Demonstration and Development (SD&D)

(U) B. Accomplishments/Planned Program (\$ in Millions)

	FY 2006	FY 2007	FY 2008	FY 2009
(U) NPLACE	2.395	0.000	0.000	0.000
(U) Distributed Mission Interoperability Toolkit (DMIT)	4.796	2.292	0.000	0.000
(U) Enterprise Services for Reach Back Capabilities (ESRBC)	1.727	1.517	0.000	0.000
(U) Data Fusion and Integration of the Net-centric Force Protection Enterprise Services (DFFP)	1.631	1.420	0.000	0.000
(U) Airborne Web Services (AWS) Spiral 3	1.631	1.421	0.000	0.000
(U) Net-Centric Information Visualization Services (NVIS) aka SALVO	0.959	0.000	0.000	0.000
(U) Global Awareness Presentation System (GAPS) for USSTRATCOM	0.959	1.033	0.000	0.000
(U) Asset/eWing	4.125	3.937	0.000	0.000
(U) Applied Research in Computing Enterprise Services (ARCES)	2.877	0.000	0.000	0.000
(U) Command and Control Service Level Management (C2SLM)	6.715	6.357	0.000	0.000
(U) Defense Energy Awareness and Management Center (DEAMC)	0.000	1.614	0.000	0.000
(U) Program Engineering Interoperability Framework (PEIF)	0.000	1.614	0.000	0.000
(U) Medical Data Storage and Retrieval System (MEDSTARS)	0.000	2.293	0.000	0.000
(U) Total Cost	27.815	23.498	0.000	0.000

(U) C. Other Program Funding Summary (\$ in Millions)

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) Not applicable										

Exhibit R-2a, RDT&E Project Justification

DATE

February 2007

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604740F Integrated Command & Control Applications

PROJECT NUMBER AND TITLE

2524 Reuse and Component Support

(U) D. Acquisition Strategy

All major contracts for Reuse and Component Support development will be awarded after full and open competition.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE
February 2007

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604740F Integrated Command & Control Applications	PROJECT NUMBER AND TITLE 2524 Reuse and Component Support
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(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u> NPLACE	C/FFP	West Virginia High Technology Center, West Virginia		2.106	Feb-06							0.000	2.106	TBD
DMIT	C/FFP	Gestalt, Pennsylvania		4.509	Mar-06	2.228	Mar-07					0.000	6.737	TBD
Enterprise Services for Reach Back Capabilities	C/FFP	Gestalt, Pennsylvania		1.624	Mar-06	1.453	Mar-07					0.000	3.077	TBD
Integration of Force Protection Enterprise Services (DFFP)	C/FFP	Fenwick Tech Inc. West Virginia		4.102	Apr-06	1.356	Apr-07					0.000	5.458	TBD
JSTARS/Airborne Web Services (AWS) Spiral 3	C/FFP	SAIC West Virginia		2.844	Mar-06	1.357	Mar-07					0.000	4.201	TBD
Net-Centric Info Visualization Services (NVIS) aka SALVO	C/FFP	ProLogic, West Virginia		0.912	Mar-06							0.000	0.912	TBD
Global Awareness Presentation System for USSTRATCOM	C/FFP	ProLogic, West Virginia		0.912	Mar-06	0.969	Mar-07					0.000	1.881	TBD
Asset/eWing	C/FFP	SAIC West Virginia				3.873	Mar-07					0.000	3.873	TBD
ARCES	C/FFP	Gestalt, Pennsylvania		2.734	Apr-06							0.000	2.734	TBD
C2SLM	C/FFP	Villanova Univ, Pennsylvania		6.313	May-06	6.293	May-07					0.000	12.606	TBD
Defense Energy Awareness and Management Center (DEAMC)	C/FFP	Gestalt, Pennsylvania				1.550	Mar-07					0.000	1.550	TBD
Program Engineering Interoperability Framework (PEIF)	TBD	TBD				1.550	Feb-07					0.000	1.550	TBD
MEDSTARS	C/FFP	ProLogic, West Virginia				2.228	Mar-07					0.000	2.228	TBD

R-1 Line Item No. 88

Page-8 of 11

Project 2524

Exhibit R-3 (PE 0604740F)

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis							DATE February 2007				
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)				0604740F Integrated Command & Control Applications				2524 Reuse and Component Support			
Subtotal Product Development		0.000	26.056	22.857	0.000	0.000	0.000	48.913	TBD		
Remarks:	Congressional budget line for ASSET/eWing was split between Airborne Web Services (AWS) and Integration of Force Protection Enterprise (Data Fusion and Net Centric Force Protection).										
(U) <u>Support</u>											
Contractor Support	T&M	ESC		1.759	May-06	0.641	Feb-07	0.000	2.400	TBD	
		Hanscom									
		AFB, MA									
Subtotal Support		0.000	1.759	0.641	0.000	0.000	0.000	2.400	TBD		
Remarks:											
(U) <u>Test & Evaluation</u>								0.000			
Subtotal Test & Evaluation		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Remarks:											
(U) <u>Management</u>											
Program Management Support								0.000	0.000	TBD	
Subtotal Management		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	TBD	
Remarks:											
(U) <u>Not applicable.</u>											
(U) Total Cost		0.000	27.815	23.498	0.000	0.000	0.000	51.313	TBD		
Remarks:											

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2007

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604740F Integrated Command & Control Applications

PROJECT NUMBER AND TITLE

2524 Reuse and Component Support

As of: 2 JAN 07

<i>IC2A Schedule</i>	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
AWS	▲ ▲	▲ ▲						
DMIT	▲ ▲	▲ ▲						
ESRBC	▲ ▲	▲ ▲						
NVIS/SALVO	▲							
GAPS	▲ ▲	▲ ▲						
NPLACE	→							
ARCES	▲ ▲							
DFFP	▲ ▲	▲ ▲						
ASSET/eWing	▲ ▲	▲ ▲						
C2SLM	▲	▲						
DEAMC		▲ ▲						
PEIF		TBD						
MEDSTARS		▲ ▲						

UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail	DATE February 2007
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604740F Integrated Command & Control Applications	PROJECT NUMBER AND TITLE 2524 Reuse and Component Support
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(U) <u>Schedule Profile</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) JSTARS/AWS Spiral 3	2-4Q	2-4Q		
(U) DMIT	2-4Q	2-4Q		
(U) Enterprise Services for Reach Back Capabilities (ESRBC)	2-4Q	2-4Q		
(U) Net Centric Info Visualization Services (NVIS)	2Q			
(U) Global Awareness Presentation System (GAPS) for USSTRATCOM	2-4Q	2-4Q		
(U) NPLACE	1Q			
(U) Integration of Force Protection Enterprise Services (DFFP)	2-4Q	2-4Q		
(U) ARCES	2-4Q			
(U) C2SLM	4Q	4Q		
(U) Defense Energy Awareness and Mgmt Center (DEAMC)		2-4Q		
(U) Program Engineering Interoperability Framework (PEIF)		2-4Q		
(U) MEDSTARS		2-4Q		