

UNCLASSIFIED

PE NUMBER: 0604280F
 PE TITLE: JOINT TACTICAL RADIO SYSTEMS (JTRS)

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2004	
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604280F JOINT TACTICAL RADIO SYSTEMS (JTRS)					
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	13.667	38.096	49.856	122.650	103.363	45.777	30.732	Continuing	TBD
5068 Joint Tactical Radio System (JTRS)	13.667	38.096	49.856	122.650	103.363	45.777	30.732	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

Joint Tactical Radio System (JTRS) is the Department of Defense family of common software-defined programmable radios that will form the foundation of radio frequency information transmission for Joint Vision 2020. JTRS radios are intended to interoperate with existing radio systems and provide the warfighter with additional communications capability to access maps and other visuals data, communicate via voice and video and obtain information directly from battlefield sensors. JTRS will provide internet protocol (IP) based capability to the warfighter and will replace all existing tactical radios based on the Services' migration plans. The JTRS program is built around an open Software Communications Architecture (SCA), allowing common software waveform applications to be implemented across the family of radios to provide joint-service interoperability. The Air Force (AF) established an acquisition office in late 2002 as the Service lead for developing JTRS Airborne Cluster radios for 75+ airborne platform types.

In Nov 03, after analyzing commonality, efficiency and interoperability considerations, the AF and Navy Service Acquisition Executives decided to collaboratively work together on the Air Force-led JTRS Airborne Cluster and Navy-led JTRS Maritime/Fixed Station Cluster development efforts. This joint development effort is called Airborne and Maritime/Fixed Station (AMF) JTRS. Under this arrangement, a joint Air Force and Navy team will manage the development of a common core radio system that will satisfy the combined JTRS Airborne, Maritime and Fixed Station requirements. To remain consistent with the original intent of both programs, the AF and Navy will equitably cost share the development of the common core radio design, but AF will fund any unique Airborne requirements and Navy will fund any unique Maritime/Fixed Station requirements. This effort will be led initially by the AF with the lead and key managerial positions rotating at predetermined times during the acquisition. The JTRS Defense Acquisition Board approved the consolidation of the Airborne and Maritime/Fixed Station Clusters into AMF JTRS in Dec 03. This PE represents the AF contribution to the combined AMF JTRS development strategy and continues to represent the funds necessary to develop the JTRS Airborne Cluster.

Additional AF requirements for tactical communications (i.e., handhelds, vehicular, etc) will be met by collaborating with other JTRS Clusters.

This program is in budget activity 5 (System Development and Demonstration) because it supports development and integration of solutions.

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604280F JOINT TACTICAL RADIO SYSTEMS (JTRS)

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	17.358	48.814	51.951
(U) Current PBR/President's Budget	13.667	38.096	49.856
(U) Total Adjustments	-3.691	-10.718	
(U) Congressional Program Reductions	-0.213	-10.389	
Congressional Rescissions		-0.329	
Congressional Increases			
Reprogrammings	-3.478		
SBIR/STTR Transfer			

(U) **Significant Program Changes:**

FY04 funding provides for Pre-System Development and Demonstration (Pre-SDD) effort that includes initial system engineering/design efforts through Preliminary Design Review (PDR) to deal with interface/integration constraints associated with 75+ Airborne Platform types planning to integrate JTRS Airborne Cluster. This Pre-SDD effort was originally scheduled to start in FY03, but was delayed due to the combining of Airborne and Maritime/Fixed Station Cluster development efforts into Airborne, Maritime/Fixed Station (AMF) JTRS. FY05 funding will be used to complete the Pre-SDD effort and starts the System Development and Demonstration (SDD) phase of the program.

Exhibit R-2a, RDT&E Project Justification

DATE

February 2004

BUDGET ACTIVITY		PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)		0604280F JOINT TACTICAL RADIO SYSTEMS (JTRS)					5068 Joint Tactical Radio System (JTRS)			
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total	
5068 Joint Tactical Radio System (JTRS)	13.667	38.096	49.856	122.650	103.363	45.777	30.732	Continuing	TBD	
Quantity of RDT&E Articles	0	0	0	0	0	0	0			

(U) A. Mission Description and Budget Item Justification

Joint Tactical Radio System (JTRS) is the Department of Defense family of common software-defined programmable radios that will form the foundation of radio frequency information transmission for Joint Vision 2020. JTRS radios are intended to interoperate with existing radio systems and provide the warfighter with additional communications capability to access maps and other visuals data, communicate via voice and video and obtain information directly from battlefield sensors. JTRS will provide internet protocol (IP) based capability to the warfighter and will replace all existing tactical radios based on the Services' migration plans. The JTRS program is built around an open Software Communications Architecture (SCA), allowing common software waveform applications to be implemented across the family of radios to provide joint-service interoperability. The Air Force (AF) established an acquisition office in late 2002 as the Service lead for developing JTRS Airborne Cluster radios for 75+ airborne platform types.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) AMF (Airborne) JTRS Pre-SDD Contracts (AMF design, integration planning, and risk reduction)	0.000	25.231	20.135
(U) Planning of AMF (Airborne) JTRS System Engineering, Integration and Testing	10.138		
(U) Risk Analysis, Logistics Planning, Software Management and Support	3.529	4.883	5.435
(U) AMF (Airborne) JTRS System Engineering, Integration and Test		7.982	14.218
(U) AMF (Airborne) JTRS SDD Contract (design post PDR)			10.068
(U) Total Cost	13.667	38.096	49.856

Exhibit R-2a, RDT&E Project Justification

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

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SYSTEMS (JTRS)

PROJECT NUMBER AND TITLE

5068 Joint Tactical Radio System
(JTRS)(U) C. Other Program Funding Summary (\$ in Millions)(U) D. Acquisition Strategy

All major contracts within this Program Element will be awarded after full and open competition.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604280F JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND TITLE 5068 Joint Tactical Radio System (JTRS)				
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2003 Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) <u>Product Development</u>												
Airborne Network Laboratory	C/FFP	MIT Lincoln Lab, Bedford, MA	0.000	2.900	Nov-02	2.000	Jan-04	2.500	Dec-04	Continuing	TBD	
System Engineering	C/FFP	MITRE, Bedford, MA	0.000	4.383	Nov-02	0.302	Jan-04	3.400	Oct-04	Continuing	TBD	
Cross-Platform Functional Analyses	C/FFP	ASC/AA, Wright-Patterson AFB, OH	0.000	0.986	Apr-03	1.500	Jan-04	1.700	Dec-04	Continuing	TBD	
Antenna Development	C/FFP	AFRL, Wright-Patterson AFB, OH	0.000	0.000		1.000	Feb-04	2.000	Jan-04	Continuing	TBD	
Various Contracts	C/FFP	Various	0.000	1.805		2.998		4.403		Continuing	TBD	
AMF JTRS Pre-SDD Contracts	C/CPFF	TBD	0.000	0.000		25.231	May-04	20.135	Oct-04	Continuing	TBD	
AMF JTRS SDD Contract	C/CPAF	TBD	0.000	0.000		0.000		10.068	Aug-05	Continuing	TBD	
Subtotal Product Development			0.000	10.074		33.031		44.206		Continuing	TBD	0.000
Remarks:												
(U) <u>Support</u>												
ESC ITSP Acquisition Support	C/FFP	Titan Corp., Odyssey Consulting Group, BTAS, Inc., Hanscom AFB, MA	0.000	2.083	Aug-03	2.150	Aug-04	2.150	Aug-05	Continuing	TBD	
ESC Specialized Cost Services Support	C/FFP	Tecolote Research, Hanscom AFB, MA	0.000	0.715	Aug-03	0.798	Aug-04	0.700	Aug-05	Continuing	TBD	
AFC2ISRC Contractor Support	C/FFP	Northrup Grumman, Langley AFB, VA	0.000	0.637	Feb-03	0.500	Mar-04	0.500	Mar-05	Continuing	TBD	
INFOSEC Design Support	C/FFP	NSA, FT Meade, MD	0.000	0.000		0.500	Mar-04	0.600	Mar-05	Continuing	TBD	
Subtotal Support			0.000	3.435		3.948		3.950		Continuing	TBD	0.000
Remarks:												
(U) <u>Test & Evaluation</u>												
Test Automation Equipment	MIPR	JITC	0.000	0.053	Mar-03	0.062	Jan-04	0.065	Jan-05	Continuing	TBD	

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Test Agency Support	MIPR	Various	0.000		0.120	Feb-04	0.150	Feb-05	Continuing	TBD
Subtotal Test & Evaluation			0.000	0.053		0.182	0.215		Continuing	TBD 0.000
Remarks:										
(U) <u>Management</u>										
AMF (Airborne) JTRS Program Office	C/Varies	ESC/NI4, Hanscom AFB, MA	0.000	0.105		0.935	1.485		Continuing	TBD
Subtotal Management			0.000	0.105		0.935	1.485		Continuing	TBD 0.000
Remarks:										
(U) Total Cost			0.000	13.667		38.096	49.856		Continuing	TBD 0.000

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY
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0604280F JOINT TACTICAL RADIO
SYSTEMS (JTRS)

PROJECT NUMBER AND TITLE
5068 Joint Tactical Radio System
(JTRS)

AMF JTRS Schedule

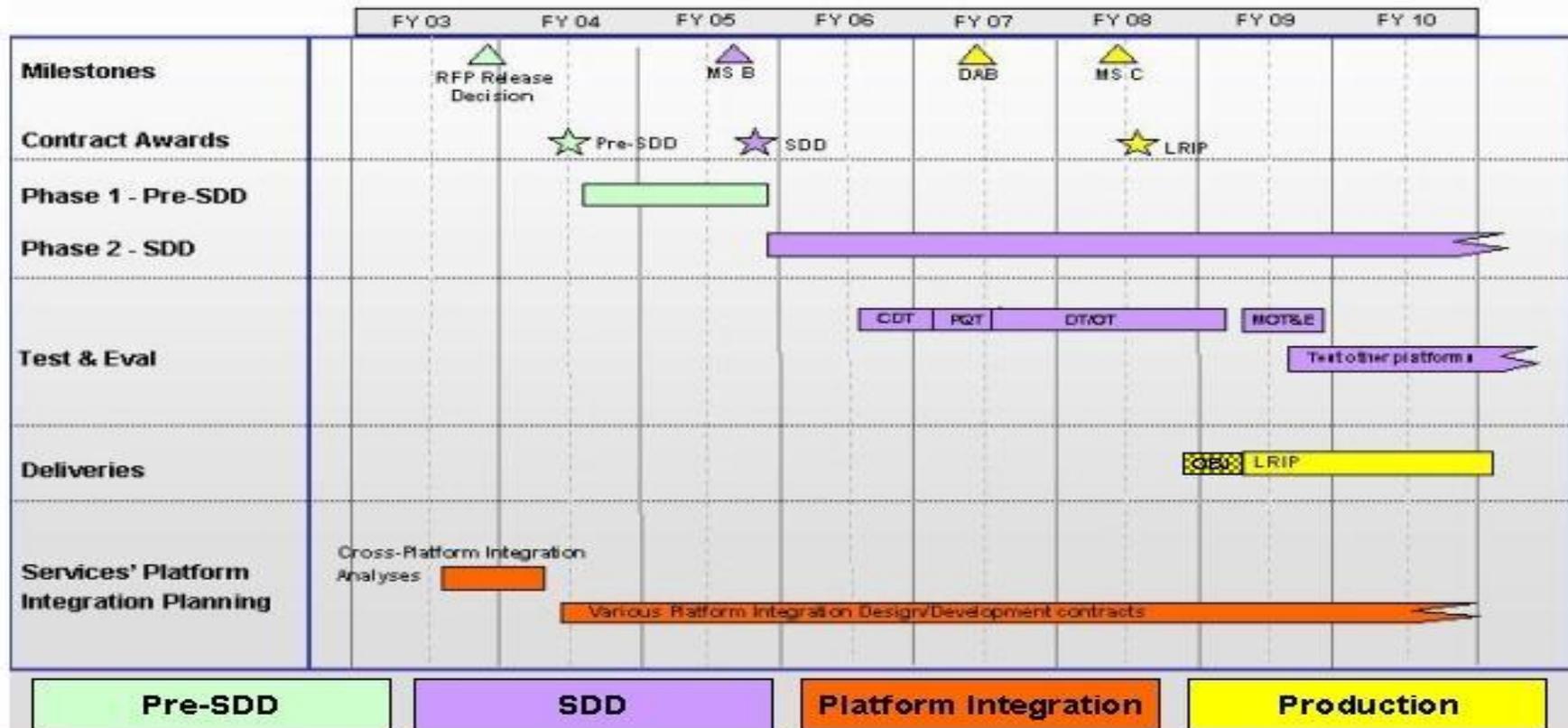


Exhibit R-4a, RDT&E Schedule Detail	DATE February 2004
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604280F JOINT TACTICAL RADIO SYSTEMS (JTRS)	PROJECT NUMBER AND TITLE 5068 Joint Tactical Radio System (JTRS)
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <u>Schedule Profile</u>			
(U) AMF JTRS Cluster (Pre-SDD) RFP Release		2Q	
(U) AMF JTRS Cluster (Pre-SDD) Contract Award		3Q	1Q
(U) AMF JTRS Cluster (SDD) RFP Release			3Q
(U) AMF JTRS Cluster (SDD) Contract Award			4Q