

UNCLASSIFIED

PE NUMBER: 0604280F

PE TITLE: JOINT TACTICAL RADIO SYSTEMS (JTRS)

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2006
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604280F JOINT TACTICAL RADIO SYSTEMS (JTRS)
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Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	36.109	81.036	0.000	284.673	272.230	200.797	99.782	Continuing	TBD
5068 Joint Tactical Radio System (JTRS)	36.109	81.036	0.000	284.673	272.230	200.797	99.782	Continuing	TBD

In FY2007, Project No. 5068, Joint Tactical Radio Systems (JTRS) efforts were transferred from PE 0604280F to PE 0604280A, Joint Tactical Radio Systems (JTRS) in order to support the revised JTRS program development acquisition strategy. "Refer to PE 060280A for all updates on acquisition strategy, contracts and schedules. Only FY 2005 and FY 2006 actuals have been updated within this display."

(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 visual 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, allied, and coalition interoperability. JTRS is a key enabler that will provide dynamic connectivity throughout the battle space to operate within the network centric operational environment

In Nov 03, the AF and Navy Service Acquisition Executives decided to foster commonality by merging the AF-led JTRS Airborne Cluster and Navy-led JTRS Maritime/Fixed Station Cluster development efforts. The JTRS Defense Acquisition Board endorsed the program merger in Dec 03. This joint development effort is called Airborne and Maritime/Fixed Station (AMF) JTRS. Under this arrangement, a joint Air Force and Navy team manages the development of a common core radio design that will be the basis for satisfying the Airborne, Maritime and Fixed Station domain 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 is currently led by an AF Program Manager and Navy Deputy Program Manager with the lead and key managerial positions rotating at predetermined times during the acquisition. This PE represents the AF contribution to the combined AMF JTRS development and to the implementation of AF JTRS requirements. In addition to the AMF JTRS development, FY04-07 funds are used for the planning and implementation of AF JTRS, such as requirements and integration analyses, engineering support, and the JTRS Wideband Network Waveform (WNW) / Airborne Network requirements.

Additional AF requirements for tactical communications (i.e., handhelds, manpacks, vehicular, etc.) will be met by collaborating with other JTRS Clusters. Funding to support program planning and engineering support to evaluate AF requirements for these Clusters is included in this PE.

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

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	49.856	124.225	103.363
(U) Current PBR/President's Budget	36.109	81.036	0.000
(U) Total Adjustments	-13.747	-43.189	
(U) Congressional Program Reductions	-10.000	-42.016	
Congressional Rescissions	-0.808	-1.173	
Congressional Increases			
Reprogrammings	-1.852		
SBIR/STTR Transfer	-1.087		

(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 AMF JTRS. This Pre-SDD effort was originally scheduled to start in FY03, but was delayed due to combining of Airborne and Maritime/Fixed Station Cluster development efforts into Airborne, Maritime/Fixed Station (AMF) JTRS. FY04 funds were adjusted to account for delay in Pre-SDD contract awards. FY05 funding was to continue the development effort and implement AF JTRS requirements. FY06 funding continues the system development phase of the program; transitioning from the Pre-SDD to the SDD phase which includes Critical Design Review and pre-engineering development model build-up of multiple system form factors and ancillary equipment.

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PROJECT NUMBER AND TITLE

5068 Joint Tactical Radio System (JTRS)

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5068 Joint Tactical Radio System (JTRS)	36.109	81.036	0.000	284.673	272.230	200.797	99.782	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) AMF JTRS Initial Design through PDR (initial development, integration planning, and risk reduction)	22.088	20.058	
(U) AF JTRS Requirements Planning and Implementation	1.669	5.396	
(U) Business Operations, Logistics Planning, Software Management and Support	6.110	10.014	
(U) AMF (Airborne) JTRS System Engineering, Integration and Test	6.241	26.799	
(U) AMF JTRS Design -- post PDR Design and SDD Contract		18.769	
(U) Total Cost	36.109	81.036	0.000

(U) <u>C. Other Program Funding Summary (\$ in Millions)</u>	<u>FY 2005</u>	<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>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) PE 0207423F Advanced Communications Systems - Aircraft Procurement, AF		17.594	0.000	50.543	165.863	169.167	288.216	Continuing	TBD
(U) PE 0207423F Advanced Communications Systems - Other Procurement, AF		11.404	39.514	112.760	161.941	168.992	246.338	Continuing	TBD
(U) PE 0207423F Advanced Communications Systems - Operations and Maintenance, AF			3.108	10.980	11.119	11.476	11.477	Continuing	TBD

(U) **D. Acquisition Strategy**
 All major contracts within this Program Element will be awarded after full and open competition.

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Exhibit R-3, RDT&E Project Cost Analysis

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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 2005 Cost</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>												
JTRS WNW/Airborne Network Implementation Requirements	C/FFP	MIT Lincoln Lab, Bedford, MA		0.450	Nov-04	0.500	Jan-06			Continuing	TBD	TBD
AMF JTRS System Engineering	C/FFP	Various		5.190	Oct-04	22.785	Oct-05			Continuing	TBD	TBD
Antenna Development	MIPR	AFRL		0.100	Sep-05	0.000				Continuing	TBD	TBD
AF JTRS Planning and Implementation	C/FFP	Various		0.233	Jan-05	0.716	Jan-06			Continuing	TBD	TBD
AMF JTRS Pre-SDD Contracts	C/CPFF	Lockheed Martin, Manassas, VA		22.087	Nov-05	20.057	Jan-06			Continuing	TBD	TBD
AMF JTRS SDD Contract	C/CPAF	TBD		0.000		18.769				Continuing	TBD	TBD
Subtotal Product Development			0.000	28.060		62.827		0.000		Continuing	TBD	TBD
Remarks:	AMF JTRS System Engineering includes MITRE, ESC/IN, Risk Reduction/Technology efforts; AF JTRS Implementation includes Lincoln Lab, C130 AMP Antenna Analysis, JPALS Study											
(U) <u>Support</u>												
ESC Acquisition Support	C/FFP	Various		1.766	Dec-04	3.691	Jan-06			Continuing	TBD	TBD
ESC Specialized Cost Services Support	C/FFP	Tecolote Research, Hanscom AFB, MA		0.494	Jan-05	0.997	Dec-05			Continuing	TBD	TBD
AFC2ISRC Requirements & Integration Analyses Support	C/FFP	Northrop Grumman, Langley AFB, VA		0.801	Feb-05	0.900	Feb-06			Continuing	TBD	TBD
INFOSEC Design Support	MIPR	NSA, FT Meade, MD		0.690	Dec-05	1.243	Feb-06			Continuing	TBD	TBD
Subtotal Support			0.000	3.751		6.831		0.000		Continuing	TBD	TBD
Remarks:												
(U) <u>Test & Evaluation</u>												
Test Automation and Test Support	MIPR	JITC		0.000		2.000	Jan-06			Continuing	TBD	TBD
Test Agency Support	MIPR	Various		0.262	Jan-05	3.387	Jan-06			Continuing	TBD	TBD
Subtotal Test & Evaluation			0.000	0.262		5.387		0.000		Continuing	TBD	TBD
Remarks:												
(U) <u>Management</u>												
AMF (Airborne) JTRS Program Office	C/Varies	ESC/NI4, Hanscom AFB,		3.933		5.824				Continuing	TBD	TBD

Project 5068

R-1 Shopping List - Item No. 73-6 of 73-9

Exhibit R-3 (PE 0604280F)

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AF JTRS Implementation Program Office	C/Varies	MA ESC/NI4, Hanscom AFB, MA	0.103	0.167		Continuing	TBD	TBD	
Subtotal Management			0.000	4.036	5.991	0.000	Continuing	TBD	TBD
Remarks:									
(U) Total Cost			0.000	36.109	81.036	0.000	Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

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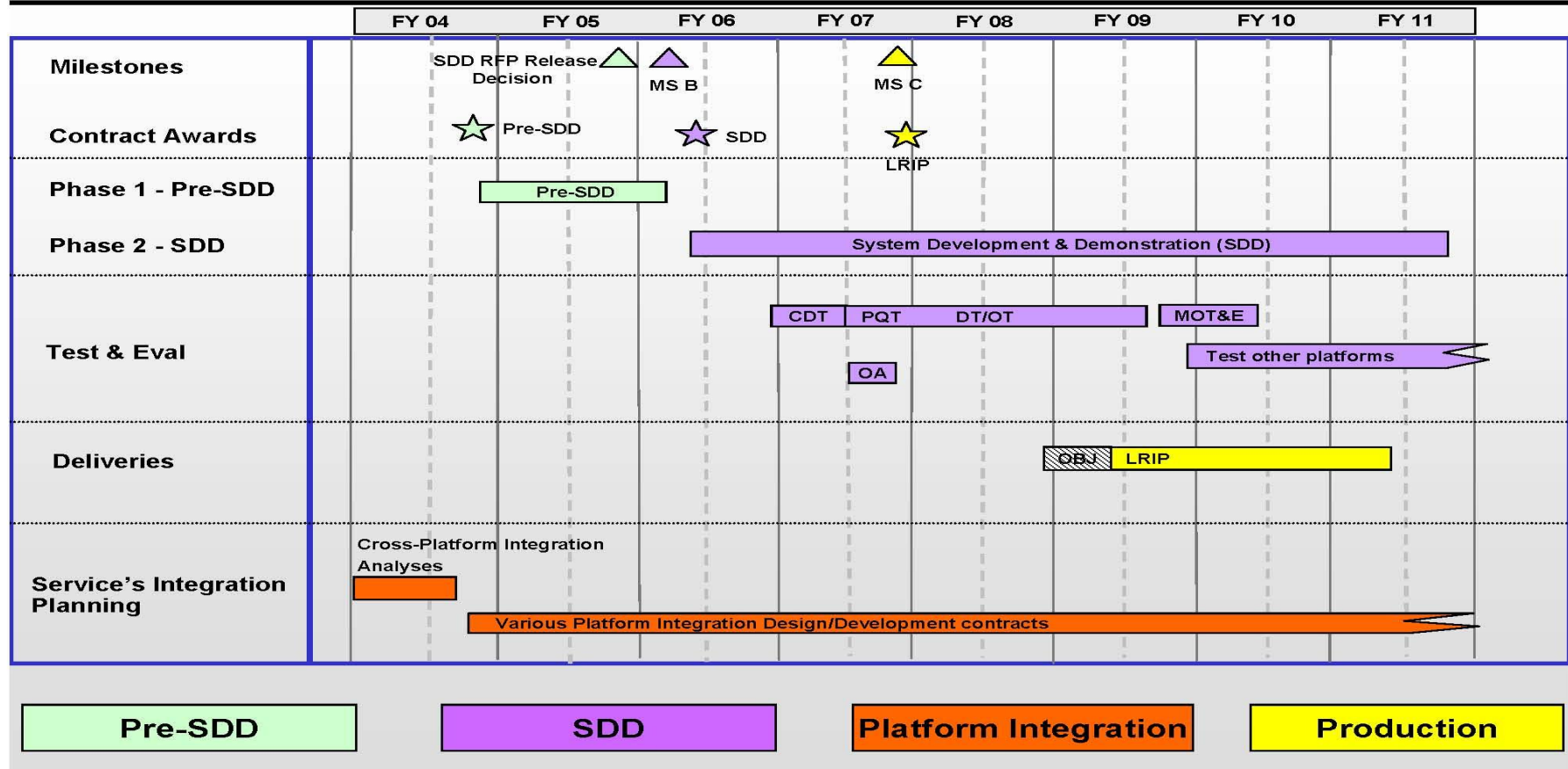
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AMF JTRS Schedule



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Exhibit R-4a, RDT&E Schedule Detail		DATE February 2006
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(U) <u>Schedule Profile</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) AMF JTRS Cluster (Pre-SDD) Contract Award		2Q	
(U) Milestone B		1Q	
(U) AMF JTRS Cluster (SDD) Contract Award		2Q	
(U) Milestone C			4Q