Exhibit R-2, **RDT&E Budget Item Justification:** PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force PE 0207423F: Advanced Communications Systems

BA 7: Operational Systems Development

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	20.715	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
675189: C2ISR JTRS Integration	-	20.715	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Note

Air Force

In FY2013 Project 675189, C2ISR JTRS Integration, efforts was terminated, in order to allow the Air Force to develop an integration solution to transistion into a COTS/NDI strategy to be excuted by platform programs.

A. Mission Description and Budget Item Justification

Joint Tactical Radio System (JTRS) is the Department of Defense (DoD) family of interoperable, modular, software-defined radios that will form the foundation of radio frequency information transmission for Joint Vision 2020. Joint Tactical Radio Systems (JTRS) will link the power of the Global Information Grid (GIG) to the warfighter in applying fire effects and achieving overall battlefield superiority. By developing and implementing an open architecture of cutting-edge radio waveform technology, multiple radio types (e.g., handheld, manpack, ground-mobile, airborne, etc.) are now capable of communicating with one another. JTRS radios are intended to interoperate with existing radio systems and improve Joint warfighting through a series of new, joint networking waveforms enabling communication via voice, data, and video over mobile, adhoc, internet protocol (IP) based networks. Each radio will operate as a node in the network to ensure secure wireless communication and networking services for airborne, mobile and fixed forces. These goals extend to U.S. allies, Joint and Coalition partners, and, in time, disaster response personnel. JTRS will make the Air Force more effective in Joint warfighting through a series of new, joint networking waveforms. These waveforms included the Mobile User Objective System (MUOS), which provides next generation SATCOM beyond-line-of-sight (BLOS) communications, as well as the Wideband Networking Waveform (WNW) and the Soldier Radio Waveform (SRW), which provide interoperability with Army ground forces from the brigade level down to the dismounted soldier. Together these waveforms enable Joint Close Air Support (JCAS), Combat Search and Rescue (CSAR), and other Joint missions. 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. The Enterprise Business Model, incorporating a common set of sh

This program is in Budget Activity 7, Operational Sysytem Development because this activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production in the current or subsequent fiscal year

PE 0207423F: Advanced Communications Systems

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^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

PE 0207423F: Advanced Communications Systems

R-1 ITEM NOMENCLATURE

FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
43.964	0.000	0.000	-	0.000
20.715	0.000	0.000	-	0.000
-23.249	0.000	0.000	-	0.000
_	0.000			
_	0.000			
0.000	0.000			
_	0.000			
_	0.000			
0.000	0.000			
0.000	0.000			
-23.249	0.000	0.000	-	0.000
	43.964 20.715 -23.249 - - 0.000 - - 0.000 0.000	43.964 0.000 20.715 0.000 -23.249 0.000 - 0.000 - 0.000 - 0.000 - 0.000 - 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	43.964 0.000 0.000 20.715 0.000 0.000 -23.249 0.000 0.000 - 0.000 0.000 - 0.000 0.000 - 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	43.964 0.000 0.000 - 20.715 0.000 0.000 - -23.249 0.000 0.000 - - 0.000 - - 0.000 0.000 - - - 0.000 - - 0.000 0.000 - - 0.000 0.000 0.000 - 0.000 0.000 0.000 -

Change Summary Explanation

In FY2013, Project number 675189, C2ISR JTRS Integration, was terminated.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2012	FY 2013	FY 2014
Title: Systems Engineering and Integration	17.523	0.000	0.000
Description: Systems engineering and integration to develop and certify solutions to Air Force unique requirements for the integration of JTRS compliant radios into Air Force platforms.			
FY 2012 Accomplishments: Funded hardware and software development of a common integration solution for the integration of JTRS compliant terminals onto a variety of Air Force platforms. Also funding risk reductions activities and the development of integration solutions to meet the unique requirements of each host platform.			
Title: Platform Planning and Integration	0.600	0.000	0.000
Description: Platform planning and integration support			
FY 2012 Accomplishments: Funded non-recurring engineering (NRE) for integration of JTRS Multi Functional Information Distribution System (MIDS) terminal on the JSTARS aircraft. Continuing to fund integration efforts to support IP networking and data communication.			
Title: Test and Evaluation	0.667	0.000	0.000
Description: Interoperability testing and evalution to perform risk reduction to ensure successful platform integration.			

PE 0207423F: Advanced Communications Systems

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2014 Air Force **DATE**: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0207423F: Advanced Communications Systems

BA 7: Operational Systems Development

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments:			
Funded interoperability testing and evalution to perform risk reduction to ensure successful platform integration.			
Title: PMA	1.925	0.000	0.000
Description: Program Management Administration			
FY 2012 Accomplishments:			
Program Management Administration			
Accomplishments/Planned Programs Subtotals	20.715	0.000	0.000

D. Other Program Funding Summary (\$ in Millions)

•	•	-	FY 2014	FY 2014	FY 2014					Cost To	
<u>em</u>	FY 2012	FY 2013	Base	000	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	Complete	Total Cost
Item#	58.416	11.639	3.290		3.290	4.547	0.000	0.000	0.000	0.000	0.000
craft											
tem#	38.567	56.229	13.816		13.816	67.153	32.999	23.714	24.141	Continuing	Continuing
e	tem e Item # ircraft ne Item #	e Item # 58.416 ircraft	e Item # 58.416 11.639 ircraft	tem FY 2012 FY 2013 Base e Item # 58.416 11.639 3.290 ircraft	tem FY 2012 FY 2013 Base OCO el Item # 58.416 11.639 3.290 ircraft	tem FY 2012 FY 2013 Base OCO Total se Item # 58.416 11.639 3.290 3.290 ircraft 3.290 3.290 3.290	tem FY 2012 FY 2013 Base OCO Total FY 2015 ie Item # 58.416 11.639 3.290 3.290 4.547	tem FY 2012 FY 2013 Base OCO Total FY 2015 FY 2016 ie Item # 58.416 11.639 3.290 3.290 4.547 0.000 ircraft ircraft 3.290 4.547 0.000	tem FY 2012 FY 2013 Base OCO Total FY 2015 FY 2016 FY 2017 e Item # 58.416 11.639 3.290 3.290 4.547 0.000 0.000 ircraft	tem FY 2012 FY 2013 Base OCO Total FY 2015 FY 2016 FY 2017 FY 2018 ie Item # 58.416 11.639 3.290 3.290 4.547 0.000 0.000 0.000 ircraft ircraft 0.000	tem FY 2012 FY 2013 Base OCO Total FY 2015 FY 2016 FY 2017 FY 2018 Complete lee Item # 58.416 11.639 3.290 3.290 4.547 0.000 0.000 0.000 0.000 ircraft

837100: Tactical C-E Equipment

Remarks

Air Force

E. Acquisition Strategy

In 2005, the DoD established the Joint Program Executive Office (JPEO) for JTRS. The JPEO has full directive authority for all JTRS research, development, testing, and evaluation of waveforms, radios, common ancillaries, network management, and associated software. The JPEO is funded jointly by the Services in PE 0604280N. New PE in FY14 0605030F

Air Force JTRS Program Office will perform system engineering integration, to deliver an interoperable, fully synchronized, deployable JTRS system under various contract awards. The program office will lead the development of common integration hardware and sofware that can be used across multiple Air Force platforms. The AF JTRS program office will also work with the JPEO, industry, and the platform program offices to develop integration solutions specific to each platform. This effort will assist various AF platform users in acquiring and integrating the next generation communications system, to include all key documentation (CONOPS, TTPs, ICDs, TRDs, etc.)

F. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

PE 0207423F: Advanced Communications Systems

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0207423F: Advanced Communications

Systems

DATE: April 2013

PROJECT

675189: C2ISR JTRS Integration

Product Developmen	nt (\$ in Mi	llions)		FY	2012	FY 2	2013	FY 2 Ba			2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Systems Engineering, Planning, and Integration-1	SS/FFP	Rockwell Collins:Cedar Rapids, IA	-	0.490	Feb 2012	0.000		0.000		-		0.000	0.000	0.490	48.766
Systems Engineering, Planning, and Integration-2	TBD	Boeing:Long Beach, CA	-	1.337	Sep 2012	0.000		0.000		-		0.000	0.000	1.337	13.201
Systems Engineering, Planning, and Integration-3	SS/CPFF	Nortrop Grumman:Redondo Beach, CA	-	1.213	Jun 2012	0.000		0.000		-		0.000	0.000	1.213	14.295
Systems Engineering, Planning, and Integration-4	SS/TBD	System Research and Application:Fairfax, VA	-	2.750	Aug 2012	0.000		0.000		-		0.000	0.000	2.750	15.453
Systems Engineering, Planning, and Integration-5	C/Various	Various:Various,	-	4.559	Apr 2012	0.000		0.000		-		0.000	Continuing	Continuing	79.795
Systems Engineering, Planning, and Integration-6	TBD	Various:Various,	-	8.658		0.000		0.000		-		0.000	Continuing	Continuing	
		Subtotal	0.000	19.007		0.000		0.000		0.000		0.000			
Support (\$ in Millions	s)			FY 2	2012	FY 2	2013	FY 2 Ba			2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Program Management Activities and Support	C/Various	Various:Various,	-	1.388	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	24.044
		Subtotal	0.000	1.388		0.000		0.000		0.000		0.000			24.044
Test and Evaluation	(\$ in Milli	ons)		FY	2012	FY 2	2013	FY 2 Ba			2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Test Planning and Test Agency Support	SS/ Various	Various:Various,	-	0.320	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	17.380

PE 0207423F: Advanced Communications Systems Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0207423F: Advanced Communications

675189: C2ISR JTRS Integration

Test and Evaluation	(\$ in Milli	ons)		FY 2	2012	FY 2	013	FY 2 Ba	2014 se	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contrac
		Subtotal	0.000	0.320		0.000		0.000		0.000		0.000			17.38
Management Service	es (\$ in M	illions)		FY 2	2012	FY 2	013	FY 2 Ba	2014 se	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA	Various	Various:Various	-	0.000		0.000		0.000		-		0.000	0.000	0.000	0.00
		Subtotal	0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.00
															T4
			All Prior Years	FY 2	2012	FY 2	013	FY 2 Ba	2014 se	FY 2		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

PE 0207423F: Advanced Communications Systems Air Force

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0207423F: Advanced Communications 675189: C2ISR JTRS Integration BA 7: Operational Systems Development Systems

Air Force JTRS Development and Integration Schedule

	FY12	FY13	FY14	FY15	FY16	FY17	FY18
System Engineering, Planning and Integration							
Platform Planning and Integration							
Operational and Interoperability Test Plan							

PE 0207423F: Advanced Communications Systems Air Force

DATE: April 2013 Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE **PROJECT**

3600: Research, Development, Test & Evaluation, Air Force PE 0207423F: Advanced Communications 675189: C2ISR JTRS Integration BA 7: Operational Systems Development Systems

Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
Systems Engineering	1	2012	4	2012	
Platform Planning and Integration	1	2012	4	2012	
Operational & Interoperability Test Planning	1	2012	4	2012	

PE 0207423F: Advanced Communications Systems Air Force