

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0207418F I Tactical Airborne Control Systems							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	0.719	3.754	6.001	-	6.001	4.301	3.681	3.750	3.817	Continuing	Continuing
675234: TACP Support	-	0.719	3.754	6.001	-	6.001	4.301	3.681	3.750	3.817	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

a. The Joint Terminal Control Training and Rehearsal System (JTC TRS) project, under the Tactical Airborne Control System, funds development necessary to provide a Distributed Mission Operations (DMO) capable, high-fidelity simulator for Battlefield Airmen, to include Joint Terminal Attack Controller (JTAC) operations, Special Tactics Air Traffic Control, Assault Zone operations, Guardian Angel combat rescue, and Air Support Operations Center (ASOC) operations.

JTC TRS is essential to provide initial training, mission qualification training, continuation training, and currency control requirements JTACs and Special Tactics personnel. JTAC control requirements exceed the ability of live-fly aircraft to meet, and JTC TRS is the only capability projected to enable JTACs to achieve and maintain minimum required training for both qualification and proficiency in accordance with the U.S and Partner Nation Memorandum of Agreement for JTAC certification and qualification.

The JTC TRS Project provides research and development to facilitate interoperability with joint and sister Service air-ground simulation using industry standards. Future JTC TRS development will provide the capability to network aircrew full mission trainers and training centers in a live-virtual-constructive network. This development effort will also integrate ASOCs with the Joint Theater Air to Ground Simulation System (JTAGSS) trainer for Joint Fires integration. The Personnel Recovery capability is envisioned to be a "plug and play" module for the host JTC TRS. The PR capability will provide Guardian Angel personnel with an immersive LVC environment to plan, train, and rehearse their employment, rescue/recovery, and combat trauma care skills. The simulator will supplement live field training and live-fly sorties to provide realistic introductory, proficiency, currency, and upgrade training in a simulated battlefield, disaster, or humanitarian relief environment.

b. JTAGSS is a continuation of the ASOC simulation trainer initially funded in 2009 and complements the JTC TRS trainer by providing a total air-ground constructive simulation environment for integrated networked training and mission rehearsal capability that will develop JTAC/CCT and ASOC/SOF (Special Operations Forces) C2 (Command and Control) battle staff skills. JTAGSS will provide the ASOC, SOF, and TACP (Tactical Air Control Party) with the vertical and horizontal C2 communications and coordination training and mission rehearsal required for mission effectiveness. There are insufficient exercises and live training events available to meet mandated readiness requirements. The system will include a secure network connection, a constructive simulation environment generator with sharable databases, computer work stations that have synthetic reflex agent applications for each ASOC/SOF crew position to execute the air tasking order.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts for systems, fielded or approved, for production, that have been fully validated through formal Operation Utility Evaluation (OUE) and anticipate production funding in the current or subsequent fiscal year.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force				Date: February 2015	
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 0207418F I Tactical Airborne Control Systems			
B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	0.743	3.754	6.041	-	6.041
Current President's Budget	0.719	3.754	6.001	-	6.001
Total Adjustments	-0.024	-	-0.040	-	-0.040
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.024	-			
• Other Adjustments	-	-	-0.040	-	-0.040
C. Accomplishments/Planned Programs (\$ in Millions)					
	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: JTC TRS Trainer Development	0.619	0.750	2.500	-	2.500
Description: Development, test, and evaluation of high-fidelity simulation system for Joint Terminal Attack Controller (JTAC), Combat Control Team (CCT) Assault Zone operations, and Personnel Recovery (PR) training and mission rehearsal.					
FY 2014 Accomplishments: Continued development of Increment 1 of the JTC TRS trainer.					
FY 2015 Plans: Accomplish testing to support source selection of technically acceptable, production ready devices.					
FY 2016 Base Plans: Convert existing AAJTS units to JTC TRS devices.					
FY 2016 OCO Plans: N/A					
Title: JTAGSS Trainer Development	0.100	3.004	3.501	-	3.501
Description: Develops high fidelity simulation system for ASOC/SOF Command and Control System that supports JTAC training. Currently an AFRL program funded by Air Combat Command					
FY 2014 Accomplishments:					

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force								Date: February 2015			
Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>					R-1 Program Element (Number/Name) PE 0207418F / <i>Tactical Airborne Control Systems</i>						
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total		
Completed JTAGSS Phase 1 development and started Phase 2. FY 2015 Plans: Continue Phase 2 development of JTAGSS simulator configuration. FY 2016 Base Plans: Complete JTAGSS Phase 2 and transition to acquisition. FY 2016 OCO Plans: N/A											
Accomplishments/Planned Programs Subtotals					0.719	3.754	6.001	-	6.001		
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPAF: BA 03: Line Item # 837100: <i>Tactical C-E Equipment</i>	-	0.546	19.737	-	19.737	32.342	24.870	1.166	-	-	78.661
Remarks											
E. Acquisition Strategy											
a. The acquisition strategy for the development, production, and sustainment of the fixed configuration of the JTC TRS is to be determined once the Capability Production Document is validated for Milestone C.											
b. The acquisition strategy for the JTAGSS trainer will be to field advance technology demonstration units to continue to perform proof of concept and technology validation of mission simulations for all ASOC crew positions including detailed communications planning, asset deconfliction, integration of joint fires, and other critical mission areas required for integrated TACP/ASOC C2 mission success. At the completion of the technology validation, a contract will be competitively awarded to complete JTAGSS development, deployment and integration.											
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.											

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force												Date: February 2015			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0207418F / Tactical Airborne Control Systems				Project (Number/Name) 675234 / TACP Support					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JTC TRS Trainer Development	C/FPIF	ASC/WNS, AFMC : Wright Patterson AFB, OH	-	0.609	May 2014	0.750		2.500		-		2.500	Continuing	Continuing	-
JTAGSS Development	C/CPFF	AFRL, AFMC : Wright Patterson AFB, OH	-	0.110	Sep 2014	3.004	Sep 2014	3.501		-		3.501	Continuing	Continuing	-
Subtotal			-	0.719		3.754		6.001		-		6.001	-	-	-
Remarks															
JTC TRS 2.0															
- Adds Air Traffic Control and Assault Zone operations for Special Operations Special Tactics personnel.															
JTAGSS 2.0. This effort: a) Will increase the autonomous functionality and capability using reflex agents; b) improve internal ASOC crew capacity with increased voice recognition capabilities; c) make the JTAGSS system DMO ready and capable; and d) provide joint and coalition full mission rehearsal capability.															
-ASOC/JTAGSS Metric Development.															
-Scenario Authoring Tool.															
-Distributed Mission Operations Ready															
-Internal Reflex Agent Research and Development.															
-Instructor Operator Station.															
-After Action Review.															
-JTAGSS Documentation and Rapid Transition Documentation.															
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force												Date: February 2015		
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0207418F / <i>Tactical Airborne Control Systems</i>				Project (Number/Name) 675234 / <i>TACP Support</i>				

Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.719	3.754	6.001	-	6.001	-	-	-

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force										Date: February 2015									
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207418F / Tactical Airborne Control Systems					Project (Number/Name) 675234 / TACP Support									

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JTC TRS RFI																												
JTC TRS RFP																												
JTC TRS Contract Award																												
JTC TRS Test and Evaluation																												
JTC TRS Incremental Development																												
JTAGSS Increment Contract Award																												
JTAGSS Development																												
JTAGSS Production																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207418F / <i>Tactical Airborne Control Systems</i>	Project (Number/Name) 675234 / <i>TACP Support</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
JTC TRS RFI	1	2015	1	2015
JTC TRS RFP	1	2015	2	2015
JTC TRS Contract Award	4	2015	4	2015
JTC TRS Test and Evaluation	4	2015	1	2016
JTC TRS Incremental Development	2	2016	4	2017
JTAGSS Increment Contract Award	4	2014	4	2015
JTAGSS Development	1	2016	4	2017
JTAGSS Production	4	2017	4	2019