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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Air Force **Date:** March 2023

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 / AFSPECWAR - TACP
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	3.678	5.982	2.106	0.000	2.106	4.221	4.328	4.417	2.207	0.000	26.939
675234: <i>TACP Support</i>	-	3.678	5.982	2.106	0.000	2.106	4.221	4.328	4.417	2.207	0.000	26.939
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

a. The Joint Terminal Control Training and Rehearsal (JTC TRS) Program, under the Tactical Airborne Control System, funds development necessary to provide a Distributed Mission Operations [DMO] capable, high-fidelity simulator for Special Warfare airmen, to include Tactical Air Control Party (TACP), Special Tactics Combat Control Team (CCT), Joint Terminal Attack Controller (JTAC) operations and Air Support Operations Center (ASOC) operations.

JTC TRS is essential to provide initial training, mission qualification training, continuation training, and currency control requirements to JTACs and Special Tactics personnel. JTAC control training requirements exceed the ability of live-fly aircraft to meet, and JTC TRS is the only capability enabling 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 Program provides research and development to facilitate interoperability with joint and sister Service air-ground simulation using industry standards. JTC TRS 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 Ground Simulation System (JTAGSS) trainer for Joint Fires integration. 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. FY24 funds are required to complete development of Digitally Aided Close Air Support (DACAS) and the integration of Joint Air Ground Integration Center (JAGIC) Command and Control (C2) into JTAGSS.

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 TACP/CCT/JTAC and ASOC/Special Operations Forces (SOF) C2 battle staff skills. JTAGSS will provide the ASOC, SOF, and TACP 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 workstations that have synthetic reflex agent applications for each ASOC/SOF crew position to execute the Air Tasking Order (ATO).

Funds may be used to address emerging and short notice Diminishing Manufacturing Sources and Material Shortage (DMSMS) issues. DMS efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. This program element may include necessary civilian pay expenses required to manage, execute, and deliver the JTC TRS weapon system capability.

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This program element may include necessary civilian pay expenses required to manage, execute, and deliver JTC TRS capability. The use of such program's funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY22 0.00M was expended for civilian pay expenses in this program element, and in FY23 0.00M is forecasted for civilian pay expenses in this program element.

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

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	4.598	5.982	4.120	0.000	4.120
Current President's Budget	3.678	5.982	2.106	0.000	2.106
Total Adjustments	-0.920	0.000	-2.014	0.000	-2.014
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	-0.920	0.000	-2.014	0.000	-2.014

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Title: JTC TRS Trainer Development	3.678	5.982	2.106
Description: Development and test of Engineering Change Proposals (ECPs) for TACP-Close Air Support System (CASS).			
FY 2023 Plans: Will complete development of PRC 161 and PRC 163 concurrently & integration of Army C2 and Fire Support Systems into JTAGSS.			
FY 2024 Plans: Will develop JTAGGs-JAGIC Interface.			
FY 2023 to FY 2024 Increase/Decrease Statement: Funding decrease due to reduced requirement for trainer development.			
Accomplishments/Planned Programs Subtotals	3.678	5.982	2.106

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

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OPAF 03 Line Item 837100: <i>Tactical C-E Equipment</i>	3.961	2.722	3.335	0.000	3.335	3.608	3.715	3.785	2.411	Continuing	Continuing

Remarks

E. Acquisition Strategy

The JTC TRS acquisition has provided full capability as defined in the Capability Production Document (CPD). A Full and Open competitive source selection was conducted and resulted in the award of a single contract to produce and sustain the JTC TRS family of systems. The contract includes pre-priced production options for additional JTC TRS production; Emulated Military Equipment [EME] program management; cybersecurity support, Contractor Logistic Support (CLS), Training System Support Center (TSSC) for both JTC TRS and JTAGSS devices; training; and device relocation. The contract structure allows for maintaining concurrency, fidelity and connectivity; implementing system improvements/technical refresh; and other modifications as required. JTC TRS awarded the competitive contract in June 2021.

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. Current software is Government or Commercial Off-the-Shelf technologies (GOTS/COTS) allowing almost any training technology development company to compete, which lowers technical risk, schedule risk, and cost.

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Air Force **Date:** March 2023

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207418F / AFSPECWAR - TACP	Project (Number/Name) 675234 / TACP Support
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FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
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

<i>JTC TRS Trainer Development</i>	
Develop and Test TACP Engineering Change Proposals	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force		Date: March 2023
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207418F / AFSPECWAR - TACP	Project (Number/Name) 675234 / TACP Support

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>JTC TRS Trainer Development</i>				
Develop and Test TACP Engineering Change Proposals	1	2022	4	2028