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

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1208053SF / <i>Joint Tactical Ground System</i>
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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	-	0.000	0.000	14.568	0.000	14.568	6.925	6.929	7.007	7.085	0.000	42.514
676760: <i>Joint Tactical Ground Station</i>	-	0.000	0.000	14.568	0.000	14.568	6.925	6.929	7.007	7.085	0.000	42.514
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Note

This program, BA 7, PE 1208053SF, project 676760, Development and Test of Block II CDD requirements, is a new start.
 This program, BA 7, PE 1208053SF, project 676760, JTAGS Test and Evaluation Support, is a new start.

A. Mission Description and Budget Item Justification

The Joint Tactical Ground Station (JTAGS) is a post-production, Acquisition Category (ACAT) III program. JTAGS provides missile warning message data for the Air and Missile Defense (AMD) architecture and improves performance for Integrated Air and Missile Defense Fire Control Systems/Composite Army Air and Missile Defense Brigades. JTAGS disseminates near real time warning, alerting, and cueing information on ballistic missile launches and other tactical events throughout the theater using existing communication networks, providing critical support to Combatant Commanders in their Areas of Responsibility (AOR). JTAGS consist of Two sheltered operation rooms, one equipment room, and three antennas. Four OCONUS deployed JTAGS units, which are deployed in three theaters (United States Pacific Command (PACOM), United States Central Command (CENTCOM), United States European Command (EUCOM)), constitute DoD's only in-theater system providing space-based missile warning. The fifth CONUS system is used as an institutional trainer, but is available as a deployable asset. JTAGS is designated as the in-theater element of the United States Strategic Command's Theater Event System (TES), supporting all Theater Missile Defense pillars, affording the shortest sensor-to-shooter connectivity. On 14 January 2016, the Army Acquisition Executive designated the JTAGS Pre-Planned Product Improvement (JTAGS P3I) program as a separate ACAT III modification program.

The JTAGS Program Element (PE) supports development and testing of the JTAGS Block II Preplanned Product Improvements (P3I) program based on the JTAGS Operational Requirements Document (ORD), additive Joint Requirements Oversight Council - Memorandum (JROC-M) requirements, and the formal JTAGS Block II Capability Development Document (CDD) thresholds. P3I upgraded JTAGS to a Block II configuration for operation with the next generation of Space Based Infrared System (SBIRS) satellites, and improved warning tactical parameters and timeliness. The JTAGS Block II P3I program based on the 2009 JTAGS ORD is on contract as a two-phase development effort. JTAGS Block II Phase 2 activities seek to develop and test capabilities identified in 2009 JTAGS Operational Requirements Document(ORD). Joint Requirements Oversight Council (JROC) Memos 197-12, 113-13, and 042-19 and PL 111-383(Ike Skelton National Defense Authorization Act for FY 2011) support of the requirements to develop and fielded JTAGS Block II capabilities as soon as possible.

JTAGS Block II P3I Phase 1 is complete. The final developmental efforts of JTAGS Block II P3I Phase 2 to achieve 2009 ORD requirements completed in FY2022. Follow-on Test and Evaluation (FOTE) completed in FY2022 with Materiel Release efforts to be conducted in FY2023. JTAGS Block II Phase 2 Spiral 3 fielding is planned for FY 2024. The JTAGS Block II CDD addresses evolving User-driven needs such as emerging threats and interface efforts that were not known at the time the JTAGS ORD was validated. Developmental efforts to achieve JTAGS Block II CDD threshold requirements continue through FY28.

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Fiscal Year 2024 (FY24) requested funding allows for the continued development of cyber compliance, defense against emerging threats, system materiel release, Assured Positioning, Navigation and Timing (APNT) and M-code GPS compliance, addresses obsolescence mitigation with Commercial Off The Shelf (COTS) hardware/software upgrades, and NextGen Polar Geosynchronous satellite interface efforts.

The Joint Tactical Ground Station (JTAGS) transitions to US Space Force in FY2024 and FY2023 is the last year for Army Funding.

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)	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	14.568	0.000	14.568
Total Adjustments	0.000	0.000	14.568	0.000	14.568
• 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	0.000	0.000	14.568	0.000	14.568

C. Accomplishments/Planned Programs (\$ in Millions)	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>
Title: Development and Test of Block II CDD requirements	0.000	0.000	14.276
Description: JTAGS Block II program continues to focus on development/integration of evolving cyber hardening advances, defense against emerging threats, and JTAGS Capability Development Document (CDD) threshold requirements. JROC-Memos 197-12, 113-13, and 042-19 and PL 111-383 (Ike Skelton National Defense Authorization Act for FY2011) require fielding of these capabilities as soon as possible.			
FY 2023 Plans:			

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>Funding required continues to support the development efforts detailed in the JTAGS Block II CDD of A-PNT and M-Code GPS compliance and continues to address obsolescence mitigation and COTS hardware and software upgrades. The funding supports continued efforts to complete requirements in the Block II CDD.</p> <p>FY 2024 Plans: Funding required to complete development and deployment of cyber security tools to be achieve compliance with Risk Management Framework (RMF) requirements; completes development of new capabilities detailed in the JTAGS Block II Capability Development Document (CDD) defense against emerging threats, system materiel release, and addresses obsolescence mitigation with Commercial Off the Shelf (COTS) hardware/software upgrades.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: FY2023 to FY2024 increases as development is focused on completion of capabilities detailed in the JTAGS Block II Capability Development Document (CDD).</p>			
<p>Title: JTAGS Test and Evaluation Support</p> <p>Description: Test and evaluation support for the JTAGS program.</p> <p>FY 2023 Plans: Funding provides for A-PNT Cooperative Vulnerability & Penetration Assessment (CVPA) and Technical Manual Delta Validation and Verification Certification and of the JTAGS Block II system.</p> <p>FY 2024 Plans: Funding provides for Technical Manual Delta Validation and Verification Certification of the JTAGS Block II system.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: FY2023 to FY2024 decrease due to completion of JTAGS Block II Follow-on Test and Evaluation (FOTE) with the exception of APNT and CVPA which have been removed.</p>	0.000	0.000	0.292
Accomplishments/Planned Programs Subtotals	0.000	0.000	14.568

D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2024</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u>	<u>Total Cost</u>
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	
• SPSF 01 JTAGS0: <i>Joint Tactical Ground Station</i>	8.088	0.349	0.576	-	0.576	-	-	-	-	0.000	9.013

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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>
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Remarks

The Joint Tactical Ground Station (JTAGS) transitions to US Space Force in FY2024 and FY2023 is the last year for Army Funding.

E. Acquisition Strategy

This program element develops critical software intensive improvements, while continuing to make maximum use of Non-Developmental Items (NDI)/Commercial Off-The-Shelf (COTS) components and Government Furnished Equipment (GFE). After design and integration, the system will be subject to thorough developmental and validation/verification testing to verify performance, operational effectiveness and suitability. The JTAGS Block II Pre-planned Product Improvement (P3I) program was initiated based on a 2009 JTAGS Operational Requirements Document (ORD) and upgrades JTAGS to a Block II configuration for operation with the next generation of Space Based Infrared System (SBIRS) satellites, improving warning tactical parameters and timeliness. The JTAGS Block II P3I contract was a full and open competition, but only the incumbent JTAGS contractor submitted a proposal, resulting in a sole-source contract on 26 Aug 2012. The contract's development options are Cost Plus Incentive Fee; its production options are Firm Fixed Price, and its Sustainment options are Cost Plus Fixed Fee. The JTAGS Block II contract's period of performance is from 1 October 2012 through 30 September 2021 with a contract extension to March 2022. As threats continue to evolve and change as well as new satellite sensors become available, the JTAGS Users in conjunction with the Army Capabilities Manager have developed a JTAGS Block II Capability Development Document (CDD), requiring JTAGS to address new/changing threats that were not addressed in the 2009 JTAGS ORD. The acquisition of the continued JTAGS Block II efforts based on the JTAGS Block II CDD was performed under a sole source follow-on contract awarded May 2022 to the current JTAGS contractor.

The Joint Tactical Ground Station (JTAGS) transitions to US Space Force in FY2024 and FY2023 is the last year for Army Funding.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force **Date:** March 2023

Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1208053SF / Joint Tactical Ground System	Project (Number/Name) 676760 / Joint Tactical Ground Station
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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Development and Test Block II CDD requirements	SS/ Various	Northrup-Grumman : Colorado springs, CO	-	0.000	May 2022	0.000	Nov 2023	7.829	Nov 2023	-		7.829	0.000	7.829	-
System Engineering Support	C/CPFF	Intrepid : Huntsville, AL	-	0.000	Jan 2023	0.000	Jan 2023	1.949	Jan 2024	-		1.949	0.000	1.949	-
Subtotal			-	0.000		0.000		9.778		-		9.778	0.000	9.778	N/A

Remarks
Continues development of the JTAGS Block II capabilities based on the JTAGS Block II Capability Development Document (CDD)

Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
System Engineering Technical Assistance	C/CPFF	Intrepid : Huntsville, AL	-	0.000	Jan 2023	0.000	Jan 2023	2.253	Jan 2024	-		2.253	0.000	2.253	-
Subtotal			-	0.000		0.000		2.253		-		2.253	0.000	2.253	N/A

Remarks
Provides technical assistance in implementing the JTAGS Block II CDD

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
JTAGS Test Support (ATEC/AIC/JITC)	Allot	Various (ATEC,AIC,JITC) : : Various	-	0.000	Oct 2021	0.000	Oct 2022	0.426	Oct 2023	-		0.426	0.000	0.426	-
Subtotal			-	0.000		0.000		0.426		-		0.426	0.000	0.426	N/A

Remarks
Supports testing of JTAGS Block II development efforts based on the JTAGS Block II CDD.

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Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Government Program Management	Allot	Various(AMC,AMCOM,CDDC): : Redstone Arsenal, AL	-	0.000	Oct 2021	0.000	Oct 2022	2.111	Oct 2023	-		2.111	0.000	2.111	-
Subtotal			-	0.000		0.000		2.111		-		2.111	0.000	2.111	N/A

Remarks
Provides Other Government Agency (OGA) support to the JTAGS acquisition program

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.000	0.000	14.568	-	14.568	0.000	14.568	N/A

Remarks
The Joint Tactical Ground Station (JTAGS) transitions to US Space Force in FY2024 and FY2023 is the last year for Army Funding.

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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Joint Tactical ground station -P3I</i>				
JTAGS follow on Operational Test and Evaluation	2	2022	3	2022
JTAGS Block II CDD driven emerging threats and cyber hardening	1	2022	2	2023
JTAGS Block II Engineering Service Follow on Contract	3	2022	3	2025
Limited User Test or Block II CDD emerging Threat Capabilities	3	2023	3	2023
Continued Block II CDD Emerging Threats and future sensors	4	2023	1	2025
JTAGS Block II Phase 2 Spiral 3 fielding	1	2024	4	2024
Limited User Test of Block II CDD Emerging Threat Capabilities	2	2025	2	2025
JTAGS Block II Engineering Services Contract Extension	3	2025	4	2028

Note

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