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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605030F <i>I Joint Tactical Network Center (JTNC)</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	2.222	2.256	0.000	0.000	0.000	1.471	1.496	1.666	1.689	Continuing	Continuing
655068: <i>Joint Tactical Radio System (JTRS)</i>	-	2.222	2.256	0.000	0.000	0.000	1.471	1.496	1.666	1.689	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
 Joint Tactical Networking Center (JTNC) was funded using a Joint budget strategy. Each Military Department (MILDEP) would budget for approximately one-third of the total program RDT&E requirements for joint efforts. Beginning in FY25 and beyond, funding is to be aligned directly to Army PE 0605030A.

A. Mission Description and Budget Item Justification

No FY 2025 funding requested in the Program Element.

The Joint Tactical Networking Center (JTNC) is chartered to enable the Department of Defense (DoD)'s rapid identification, characterization, procurement, fielding, and sustainment of modular, innovative tactical communications products that ensure secure, interoperable, and resilient Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) capabilities. The JTNC provides technical expertise to facilitate tactical communications management, innovation, and standardization. The JTNC: (1) maintains a cyber-hardened DoD Information Repository (IR), (2) provides Technical Analyses/Capability Characterizations on tactical communications products, (3) provides Open Systems Architecture Standards, (4) provides exportability analysis and licensing reviews, and (5) serves as Technical Advisor to the Communications, Command, and Control Leadership Board (C3LB) and Tactical Communications Senior Steering Group (TCSSG).

JTNC mission is executed in coordination with key government stakeholders to include: C3LB, TCSSG, Communications Technologies and Waveforms Working Group (CTWWG), Resiliency Sub-Working Group (RSWG), the Department of Defense (DoD) Chief Information Officer (CIO), Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)), Joint Staff J6 (JS J6), The Under Secretary of Defense for Research and Engineering, abbreviated USD(R&E), and the Services. Particular attention is paid to ensuring that interagency work is collaborative and eliminates duplicative capability. The JTNC enables a common software baseline that is hardware agnostic leading to increased competition for Software Defined Radios (SDR).

Current JTNC directed requirements, outlined by the C3LB, consist of the CTWWG, Joint All-Domain Command and Control (JADC2) support, development/maturation of the DoD IR framework & Cloud migration, and development of the Joint Communications Marketplace (JCM) to meet DoD and Industry requirements in conjunction with DoD Instruction 4630.09. Through collaboration with USD R&E (INSS) and industry partners, JTNC is in the process of capturing information on resilient waveform technologies and portfolio products. The ultimate goal is to expedite market research activities by collecting, analyzing, and making data available in support of emerging Government waveform acquisitions. The JTNC and Joint Interoperability Test Command (JITC) co-chair the High-Frequency Interoperability and Architecture Sub-Working Group (HF I&A SWG) to resolve HF 3G and 4G interoperability issues, thus facilitating next-generation HF systems. The JTNC HF team is also pathfinding for a new tactical MIL-STD to provide more resilient communications. Additionally, the JTNC is engaged in the analysis of software artifacts involving high assurance devices,

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such as software defined radios ported with specific waveforms to support National Security Agency (NSA) efforts. The JTNC participates in Standards-related activities such as the Interface Control Working Group (ICWG) and has been collaborating with the Army on the development of C4ISR/Electronic Warfare Modular Open Suite of Standards (CMOSS) specifications. Finally, the JTNC continues evolving its Waveform Assessment and Milestone Review (WASMR) and Capability Characterization processes.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	2.222	2.256	8.732	0.000	8.732
Current President's Budget	2.222	2.256	0.000	0.000	0.000
Total Adjustments	0.000	0.000	-8.732	0.000	-8.732
• 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			
• Program Adjustment	0.000	0.000	-8.732	0.000	-8.732

Change Summary Explanation

Balance in FY23 through FY24 is attributed to a realignment from Air Force (PE 0605030F) to Army (0605030A) as per the Joint Budget Strategy outlined in the JTNC Tri-Military Department Resource Plan. FY25 and beyond is to be realigned to Army PE 0605030A.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Title: Joint Tactical Networking Center (JTNC)	2.222	2.256	0.000
Description: Joint Tactical Networking Center (JTNC) aligns with the Communications, Command, and Control Leadership Board (C3LB), DoD Chief Information Officer (CIO), Joint Staff, the Services, and other key stakeholders for those JTNC chartered processes that ensure secure, interoperable, and resilient tactical communications. The JTNC provides technical expertise to facilitate tactical communications management, innovation, and standardization. The JTNC: (1) maintains a cyber-hardened DoD Information Repository (IR), (2) provides Technical Analyses/Capability Characterizations on tactical communications products, (3) provides Open Systems Architecture Standards, (4) provides exportability analysis and licensing reviews, and (5) serves as Technical Advisor to the Communications, Command, and Control Leadership Board (C3LB) and Tactical Communications Senior Steering Group (TCSSG).			

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605030F / <i>Joint Tactical Network Center (JTNC)</i>
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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>FY 2024 Plans: JTNC serves as Chair of the Communications Waveforms and Technologies Working Group (CTWWG), supporting both TCSSG and C3LB efforts towards managing Joint warfighter challenges and fielding tactical communications solutions. JTNC performs technical analysis efforts for C3LB approved waveforms, in accordance with Service priorities and the FY 2024 JTNC Management Plan. The JTNC supports both the Services and Principal Staff Assistant (DoD CIO) in oversight of Lead Service activities as Technical Advisor, assisting in the identification and resolution of cross-service networking disconnects. The JTNC will remain engaged in Joint All Domain Command and Control (JADC2) Operational Planning Teams/ systems engineering support across the Services. The JTNC, through the efforts of the CTWWG's Resiliency Sub-Working Group, will coordinate and socialize resiliency terminology, processes, and support resources to design, test, compare, and field tactical radio products most capable of mitigating adversary detection, interception, geolocation, and jamming threats. The JTNC manages and maintains the DoD Information Repository (IR), providing controlled access for proprietary and nonproprietary waveforms and associated tactical communications products. The JTNC enhances DoD IR capabilities by evolving framework compliance and Cloud migration.</p> <p>The JTNC performs Joint Communications Marketplace (JCM) development to meet DoD and Industry requirements in conjunction with DoD Instruction 4630.09. The JTNC manages evolution of the JCM to provide value-added collaborative environment tools, enabling Government and Industry to share information on innovative technologies and DoD capability gaps leading to rapid acquisition efforts to meet warfighter needs. JCM capabilities/communities will support PEO C3T and Network Cross-Functional Team (N-CFT) requirements for Industry engagement, Technical Exchange Meetings (TEMs), whitepaper submission and evaluation, and contract efforts. The JTNC performs development of tactical communications vendor product capability characterizations for commercial off-the-shelf (COTS) and non-developmental item (NDI) tactical communication products. The JTNC will evolve DoD Waveform Standards to facilitate common development, interoperability and re-use, reducing product development time and facilitating faster delivery of capabilities to warfighters. Focused efforts will leverage emerging Spectrum activities and facilitate deployment of the Modular Radio Architecture (MRA). Finally, the JTNC will support export requests and analyses of products for exportability.</p> <p>FY 2025 Plans: JTNC will continue to serve as Chair of the Communications Waveforms and Technologies Working Group (CTWWG), supporting both TCSSG and C3LB efforts towards managing Joint warfighter challenges and fielding tactical communications solutions. JTNC will continue technical analysis efforts for C3LB approved waveforms, in accordance with Service priorities and the FY 2024 JTNC Management Plan. The JTNC will continue to support both the Services and Principal Staff Assistant (DoD CIO) in oversight of Lead Service activities as Technical Advisor, assisting in the identification and resolution of cross-service networking disconnects. The JTNC will remain engaged in Joint All Domain Command and Control (JADC2) Operational Planning Teams/ systems engineering support across the Services. The JTNC, through the efforts of the CTWWG's Resiliency Sub-Working Group, will coordinate and socialize resiliency terminology, processes, and support resources to design, test, compare, and field tactical radio</p>			

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605030F / <i>Joint Tactical Network Center (JTNC)</i>
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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>products most capable of mitigating adversary detection, interception, geolocation, and jamming threats. The JTNC will continue managing and maintaining the DoD Information Repository (IR), providing controlled access for proprietary and nonproprietary waveforms and associated tactical communications products. The JTNC will enhance DoD IR capabilities by evolving framework compliance and Cloud migration.</p> <p>The JTNC will continue Joint Communications Marketplace (JCM) development to meet DoD and Industry requirements in conjunction with DoD Instruction 4630.09. The JTNC will manage evolution of the JCM to provide value-added collaborative environment tools, enabling Government and Industry to share information on innovative technologies and DoD capability gaps leading to rapid acquisition efforts to meet warfighter needs. JCM capabilities/communities will continue to support PEO C3T and Network Cross-Functional Team (N-CFT) requirements for Industry engagement, Technical Exchange Meetings (TEMs), whitepaper submission and evaluation, and contract efforts. The JTNC will continue development of tactical communications vendor product capability characterizations for commercial off-the-shelf (COTS) and non-developmental item (NDI) tactical communication products. The JTNC will continue to evolve DoD Waveform Standards to facilitate common development, interoperability and re-use, reducing product development time and facilitating faster delivery of capabilities to warfighters. Focused efforts will leverage emerging Spectrum activities and facilitate deployment of the Modular Radio Architecture (MRA). Finally, the JTNC will continue to support export requests and analyses of products for exportability.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> FY25 funding decreased as per the Joint Budget Strategy to realign funding to Army PE 0605030A during the execution year.</p>			
Accomplishments/Planned Programs Subtotals	2.222	2.256	0.000

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

Remarks
Joint Tactical Networking Center (JTNC) was funded using a Joint budget strategy through FY24. Each Military Department (MILDEP) would budget for approximately one-third of the total program RDT&E requirements for joint efforts. As of FY25 and beyond, funding is to be realigned directly to Army PE 0605030A.

E. Acquisition Strategy
The Joint Tactical Networking Center (JTNC) is a Joint support program to the Services, the DoD Chief Information Officer (CIO), the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)), and USD Research and Engineering (USD(R&E)). JTNC core functions as defined in the JTNC Acquisition Decision Memorandum and Charter signed on 20 January 2014 and revalidated on 13 September 2019 include execution in the following areas: Information Repository, Technical Analysis, Open Systems Architecture Standards, Exportability Analysis and Licensing Review, and Technical Advisor to the C3LB. The services derived from these core functions reinforce an acquisition environment which ensures that interoperable, secure, and resilient joint tactical waveforms and wireless communications applications can operate in a variety of hardware transport solutions.

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Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)*

R-1 Program Element (Number/Name)
PE 0605030F *I Joint Tactical Network Center (JTNC)*

The FY 2025 Budget supports continued development/maturation of the DoD IR, analysis of directed software and artifacts, support of the National Security Agency (NSA) Commercial Communications Security (COMSEC) Evaluation Program (CCEP), JTNC Standards Interface Control Working Group (ICWG), the Capabilities Characterization and Joint Communications Marketplace (CC & JCM). The FY 2025 budget supports the Lead Service Initiative where JTNC will serve as a technical advisor and source of engineering and analytic resources in the conduct of Joint enterprise-level systems engineering and analysis and support DoD CIO. The FY 2025 budget supports the continued management of Joint warfighter challenges and solutions as assigned by the TCSSG. The FY 2025 budget supports Modular Radio Architecture (MRA) work, where JTNC will lead development and promulgation of a framework containing a collection of DoD standards and a description or architecture of how to use these to compose or control a communications system. The MRA defines how to implement a communications system or radio on select platforms.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605030F / Joint Tactical Network Center (JTNC)	Project (Number/Name) 655068 / Joint Tactical Radio System (JTRS)
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
JTNC Engineering/ Technical Support, Test and Evaluation, Product Development Support and Program Management	C/Various	G2SS, NIWC PAC/ LANT, APG : CA	-	2.222	Oct 2022	2.256	Oct 2023	0.000	Nov 2024	-		0.000	Continuing	Continuing	-
Subtotal			-	2.222		2.256		0.000		-		0.000	Continuing	Continuing	N/A

Remarks
Not a new start program. FY22 through FY24 funding programmed to Army PE 0605030A via PDM as per the Joint Budget Strategy outlined in the JTNC Tri-Military Department Resource Plan.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.222	2.256	0.000	-	0.000	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605030F / Joint Tactical Network Center (JTNC)	Project (Number/Name) 655068 / Joint Tactical Radio System (JTRS)

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

Open Systems Architecture	
Standards Conformance Evaluations	
JTNC - Information Repository	
DoD Waveform Information Repository	
JTNC - Standards	
Evolve Waveform Standards and SCA	
JTNC - Analysis	
Analyze Waveforms and Associated Artifacts	
Joint Communications Marketplace (JCM) and Capabilities Characterization (CC)	
JCM, CC Development	
TCSSG, CTWWG	
Support to TCSSG and CTWWG activities	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605030F / <i>Joint Tactical Network Center (JTNC)</i>	Project (Number/Name) 655068 / <i>Joint Tactical Radio System (JTRS)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Open Systems Architecture				
Standards Conformance Evaluations	1	2023	4	2029
JTNC - Information Repository				
DoD Waveform Information Repository	1	2023	4	2029
JTNC - Standards				
Evolve Waveform Standards and SCA	1	2023	4	2029
JTNC - Analysis				
Analyze Waveforms and Associated Artifacts	1	2023	4	2029
Joint Communications Marketplace (JCM) and Capabilities Characterization (CC)				
JCM, CC Development	1	2023	4	2029
TCSSG, CTWWG				
Support to TCSSG and CTWWG activities	1	2023	4	2029