

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Army **Date:** February 2020

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605030A / <i>Joint Tactical Network Center (JTNC)</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	-	15.287	15.882	16.264	-	16.264	5.830	5.485	5.842	5.947	Continuing	Continuing
EA8: <i>Joint Tactical Networking Center</i>	-	15.287	15.882	16.264	-	16.264	5.830	5.485	5.842	5.947	Continuing	Continuing

Note

Joint Tactical Networking Center (JTNC) is funded using a Joint budget strategy. Each Military Department (MILDEP) budgets for approximately one-third of the total program RDT&E requirements for joint efforts. Fiscal Year (FY) 2019 to FY 2020 funding reflects the full JTNC requirement with the consolidated funding from the other Services, while FY 2021 and beyond reflects the Army one-third portion of total program RDT&E funds. Out-year funding is programmed in PE 0605030A by the Army, PE 0605030N by the Navy and PE 0605030F by the Air Force. Prior to submission of the President's Budget, the funding is consolidated in PE 0605030A via RMD for execution.

A. Mission Description and Budget Item Justification

This funding line supports the Army Network Modernization Strategy LOE 1, Unified Network. Efforts are aligned to support the Network-Cross Functional Team capability set approach to achieve the network modernization strategy.

The JTNC is responsible for ensuring secure, interoperable, and resilient tactical communications capabilities aligned to modular open architectures in support of Service, Multi-Service, and Coalition forces. 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) exportability analysis and licensing reviews, and (5) serves as Technical Advisor to the Communications, Command, and Control Leadership Board (C3LB).

This mission is executed in conjunction with other government agencies to include the National Security Agency (NSA), the Joint Interoperability Test Command (JITC), the National Telecommunication and Information Administration (NTIA), the Services, as well as Matrix and Industry partners. 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).

Through collaboration with DoD matrixed and industry partners, the JTNC 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 Tactical Communications Marketplace (CC & TCM), and Modular Radio Architecture (MRA).

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Army	Date: February 2020
---	----------------------------

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605030A / <i>Joint Tactical Network Center (JTNC)</i>
--	---

B. Program Change Summary (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	15.869	15.882	5.833	-	5.833
Current President's Budget	15.287	15.882	16.264	-	16.264
Total Adjustments	-0.582	0.000	10.431	-	10.431
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.582	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	10.431	-	10.431

Change Summary Explanation

10,431 in FY21 is attributed to the RMD to realign Navy (PE 0605030N) and Air Force (PE 0605030F) to Army (0605030A) as per the Joint Budget Strategy.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2021 Army										Date: February 2020		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605030A / <i>Joint Tactical Network Center (JTNC)</i>					Project (Number/Name) EA8 / <i>Joint Tactical Networking Center</i>		
COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
EA8: <i>Joint Tactical Networking Center</i>	-	15.287	15.882	16.264	-	16.264	5.830	5.485	5.842	5.947	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Joint Tactical Networking Center (JTNC) is funded using a Joint budget strategy. Each Military Department (MILDEP) budgets for approximately one-third of the total program RDT&E requirements for joint efforts. Fiscal Year (FY) 2019 to FY 2020 funding reflects the full JTNC requirement with the consolidated funding from the other Services, while FY 2021 and beyond reflects the Army one-third portion of total program RDT&E funds. Out-year funding is programmed in PE 0605030A by the Army, PE 0605030N by the Navy and PE 0605030F by the Air Force. Prior to submission of the President's Budget, the funding is consolidated in PE 0605030A via RMD for execution.

A. Mission Description and Budget Item Justification

This funding line supports the Army Network Modernization Strategy LOE 1, Unified Network. Efforts are aligned to support the Network-Cross Functional Team capability set approach to achieve the network modernization strategy.

The JTNC is responsible for ensuring secure, interoperable, and resilient tactical communications capabilities aligned to modular open architectures in support of Service, Multi-Service, and Coalition forces. 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) exportability analysis and licensing reviews, and (5) serves as Technical Advisor to the Communications, Command, and Control Leadership Board (C3LB).

This mission is executed in conjunction with other government agencies to include the National Security Agency (NSA), the Joint Interoperability Test Command (JITC), the National Telecommunication and Information Administration (NTIA), the Services, as well as Matrix and Industry partners. 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).

Through collaboration with DoD matrixed and industry partners, the JTNC 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 Tactical Communications Marketplace (CC & TCM), and Modular Radio Architecture (MRA).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2019	FY 2020	FY 2021
Title: DoD Waveform IR Support, Waveform Standards Evolution and Compliance & Certification Analysis	15.287	15.161	16.264

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2021 Army		Date: February 2020
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605030A / <i>Joint Tactical Network Center (JTNC)</i>	Project (Number/Name) EA8 / <i>Joint Tactical Networking Center</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021
<p>Description: Joint Tactical Networking Center (JTNC) aligns with the 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: (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) exportability analysis and licensing reviews, and (5) serves as Technical Advisor to the JTNC Board of Directors (BoD). The Joint Tactical Networking Center supports the Army's Network Modernization Strategy Line of Effort 1A - Unified Network.</p> <p>FY 2020 Plans: Continue analysis of Board of Directors approved waveforms in accordance with Service priorities and the FY 2020 JTNC Management Plan. Continue collecting relevant software, technical documentation, cataloging and inducting other DoD Communication Waveforms listed in the DoD Communication Waveform Inventory. Continue to enhance DoD Waveform IR capability and approved Standards promulgation.</p> <p>Continue the development of the tactical communications vendor product capability characterization process for commercial off-the-shelf (COTS) and non-developmental item (NDI) tactical communication products. 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. Continue to conduct technical waveform and software artifact analyses against published standards. Continue to support export requests and analyses of products for exportability. Continue to certify secure, reusable software waveforms based on government controlled open architecture to encourage a competitive, cost effective, interoperable networking environment.</p> <p>FY 2021 Plans: Continue analysis of Communications, Command, and Control Leadership Board approved waveforms in accordance with Service priorities and the FY 2021 JTNC Management Plan. Continue collecting relevant software, technical documentation, cataloging and inducting other DoD Communication Waveforms listed in the DoD Communication Waveform Inventory. Continue to enhance DoD IR capability and approved Standards promulgation.</p> <p>JTNC will serve as a technical advisor and source of engineering and analytic resources for the Lead Services in the conduct of Joint enterprise-level systems engineering and analysis and support DoD CIO in oversight of Lead Service activities with engineering expertise and assist in the identification and resolution of cross-service networking disconnects or issues. The JTNC will lead development and promulgation of the Modular Radio Architecture (MRA), a framework containing a collection of DoD standards and a description or architecture of how to use them to compose or control a communications system. The MRA defines how to implement a communications system or radio on select platforms.</p>			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2021 Army		Date: February 2020		
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605030A / <i>Joint Tactical Network Center (JTNC)</i>	Project (Number/Name) EA8 / <i>Joint Tactical Networking Center</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2019	FY 2020	FY 2021
<p>Continue the development of the tactical communications vendor product capability characterization process for commercial off-the-shelf (COTS) and non-developmental item (NDI) tactical communication products. 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. Continue to conduct technical waveform and software artifact analyses against published standards. Continue to support export requests and analyses of products for exportability. Continue to certify secure, reusable software waveforms based on Government controlled open architecture to encourage a competitive, cost effective, interoperable networking environment.</p> <p>Conduct technical waveform and software artifact analyses against published standards. Support export requests and analyses of products for exportability. Certify secure, reusable software waveforms based on Government controlled open architecture to encourage a competitive, cost effective, interoperable networking environment.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: FY 2020 to FY 2021 increase is a result of inflation rate adjustments and additional funding required to further the development of the Capabilities Characterization and Tactical Communications Marketplace.</p>				
<p>Title: FY 2020 SBIR/STTR Transfer</p> <p>Description: Funding transferred in accordance with Title 15 USC ?638</p> <p>FY 2020 Plans: Funding transferred in accordance with Title 15 USC ?638</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Funding transferred in accordance with Title 15 USC ?638</p>		-	0.721	-
Accomplishments/Planned Programs Subtotals		15.287	15.882	16.264
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
<p>The Joint Tactical Networking Center is funded by all the Services. The Joint Funding Strategy requires each of the three Service Military Departments (MILDEPs) to budget for one-third of the total program approved requirement. Army funding in FY 2022 and beyond reflects only approximately one-third of total funding. Other funding is as follows (PB20 locked positions):</p> <p>Navy RDTE: 0605030N, 3077. FY 2021 = 0 // FY 2022 = 4,741 // FY 2023 = 4,835 // FY 2024 = 4,932 // FY 2025 = 5,031 Air Force RDTE: 0605030F, 655068. FY 2021 = 0 // FY 2022 = 5,852 // FY 2023 = 5,969 // FY 2024 = 6,088 // FY 2025 = 6,210</p>				

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2021 Army		Date: February 2020
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605030A / Joint Tactical Network Center (JTNC)	Project (Number/Name) EA8 / Joint Tactical Networking Center

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

Due to Joint Funding Strategy, there is no prior year funding for JTNC in the other Service lines. Prior to the year of execution, the JTNC funding is consolidated in Army PE 0605030A for execution. In accordance with the Joint Tactical Networking Center Charter updated and re-validated on 13 September 2019, the JTNC will remain under a Joint Budget Strategy funded by the three MILDEPs.

D. 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: Department of Defense (DoD) Information Repository (IR) management and configuration control, DoD Waveform Standards, technical analyses of Government Program of Record (POR) and Industry COTS and NDI Waveform products. 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.

The FY21 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 Tactical Communications Marketplace (CC & TCM). The FY21 budget supports the Lead Services 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 FY21 budget supports Modular Radio Architecture (MRA) 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.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Army												Date: February 2020			
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0605030A / Joint Tactical Network Center (JTNC)				Project (Number/Name) EA8 / Joint Tactical Networking Center							
Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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
Program Management Support	Various	Multiple Contract Awards : Various	6.921	0.210	Oct 2018	0.138	Oct 2019	0.190	Oct 2020	-		0.190	Continuing	Continuing	Continuing
Program Management Support	C/CPFF	G2 Software Systems : San Diego, CA	2.957	0.830	Nov 2018	0.443	Nov 2019	0.502	Nov 2020	-		0.502	Continuing	Continuing	Continuing
Program Management Support	Allot	Aberdeen Proving Grounds : Aberdeen, MD	0.857	0.255	Oct 2018	-		-		-		-	0.000	1.112	-
Program Management Support	MIPR	NIWC PACIFIC : San Diego, CA	0.364	-		0.354	Nov 2019	0.412	Dec 2020	-		0.412	Continuing	Continuing	Continuing
Program Management Support	FFRDC	MITRE : McLean, VA	0.058	-		-		-		-		-	0.000	0.058	0.058
FY 2020 SBIR/STTR Transfer	TBD	Various : Various	-	-		0.721		-		-		-	0.000	0.721	-
Subtotal			11.157	1.295		1.656		1.104		-		1.104	Continuing	Continuing	N/A
Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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
JTNC Product Development Support	MIPR	NIWC PACIFIC : San Diego, CA	4.029	0.572	Nov 2018	0.470	Oct 2019	0.531	Oct 2020	-		0.531	Continuing	Continuing	Continuing
JTNC Product Development Support	C/CPFF	G2 Software Systems : San Diego, CA	8.337	2.869	Oct 2018	2.957	Nov 2019	3.077	Nov 2020	-		3.077	Continuing	Continuing	Continuing
JTNC Product Development Support	MIPR	NIWC ATLANTIC : Charleston, SC	0.053	0.151	Oct 2018	2.948	Oct 2019	3.068	Oct 2020	-		3.068	Continuing	Continuing	Continuing
JTNC Product Development Support	MIPR	Various : Aberdeen, MD	1.147	1.099	Oct 2018	0.002	Nov 2019	0.051	Nov 2020	-		0.051	Continuing	Continuing	Continuing
JTNC Product Development	C/CPFF	Booz Allen Hamilton : San Diego, CA	1.184	-		-		-		-		-	0.000	1.184	1.184

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Army												Date: February 2020			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
2040 / 5				PE 0605030A / Joint Tactical Network Center (JTNC)				EA8 / Joint Tactical Networking Center							
Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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
JTNC Product Development - Other	Allot	Aberdeen Proving Grounds : Aberdeen, MD	0.382	-		-		-		-		-	0.000	0.382	0.382
Joint Tactical Networks (JTN) Legacy Development - MIPR	MIPR	Various : Various	19.868	-		-		-		-		-	0.000	19.868	19.868
Joint Tactical Networks (JTN) Legacy Development - Contracts	C/CPIF	Various : Various	24.890	-		-		-		-		-	0.000	24.890	24.890
Subtotal			59.890	4.691		6.377		6.727		-		6.727	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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
JTNC Engineering/ Technical Support	C/CPFF	G2 Software Systems : San Diego, CA	5.467	0.771	Oct 2018	0.733	Nov 2019	0.800	Nov 2020	-		0.800	Continuing	Continuing	Continuing
JTNC Engineering/ Technical Support	FFRDC	MITRE Corporation : McLean, VA	0.826	0.151	Oct 2018	0.102	Oct 2019	0.152	Oct 2020	-		0.152	Continuing	Continuing	Continuing
JTNC Engineering/ Technical Support	MIPR	Aberdeen Proving Grounds : Aberdeen, MD	2.025	0.758	Oct 2018	0.719	Nov 2019	0.786	Nov 2020	-		0.786	Continuing	Continuing	Continuing
JTNC Engineering/ Technical Support	MIPR	NIWC PACIFIC : San Diego, CA	1.839	0.706	Nov 2018	0.847	Oct 2019	0.916	Oct 2020	-		0.916	Continuing	Continuing	Continuing
JTNC Engineering/ Technical Support	MIPR	Various : San Diego, CA	0.877	0.785	Nov 2018	-		-		-		-	0.000	1.662	0.877
JTNC Engineering/ Technical Support	C/CPFF	Booz Allen Hamilton : San Diego	14.965	-		-		-		-		-	0.000	14.965	14.965
Subtotal			25.999	3.171		2.401		2.654		-		2.654	Continuing	Continuing	N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605030A / Joint Tactical Network Center (JTNC)	Project (Number/Name) EA8 / Joint Tactical Networking Center
--	--	--

Test and Evaluation (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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/Test & Evaluation	MIPR	NIWC PACIFIC : San Diego, CA	5.404	2.027	Oct 2018	1.877	Oct 2019	1.971	Oct 2020	-		1.971	Continuing	Continuing	Continuing
Development/Test & Evaluation	C/CPFF	G2 Software Systems 01 : San Diego, CA	5.958	3.652	Oct 2018	3.043	Nov 2019	3.167	Nov 2020	-		3.167	Continuing	Continuing	Continuing
Development/Test & Evaluation	C/CPFF	Multiple Awards : Various	1.340	0.171	Oct 2018	0.309	Nov 2019	0.366	Nov 2020	-		0.366	Continuing	Continuing	Continuing
Development/Test & Evaluation	C/CPFF	Booz Allen Hamilton - NSA : Ft. Meade, MD	-	0.280	Dec 2018	0.219	Nov 2019	0.275	Nov 2020	-		0.275	Continuing	Continuing	Continuing
Development/Test & Evaluation	MIPR	National Security Agency : Ft. Meade, MD	0.775	-		-		-		-		-	0.000	0.775	0.775
Development/Test & Evaluation	C/CPFF	G2 Software Systems 04 : San Diego, CA	5.078	-		-		-		-		-	0.000	5.078	5.078
Development/Test & Evaluation	MIPR	NIWC ATLANTIC : Charleston, SC	0.160	-		-		-		-		-	0.000	0.160	0.160
Development/Test & Evaluation	C/CPFF	Booz Allen Hamilton : San Diego, CA	1.242	-		-		-		-		-	0.000	1.242	1.242
Subtotal			19.957	6.130		5.448		5.779		-		5.779	Continuing	Continuing	N/A
Project Cost Totals			117.003	15.287		15.882		16.264		-		16.264	Continuing	Continuing	N/A

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2021 Army		Date: February 2020
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605030A / <i>Joint Tactical Network Center (JTNC)</i>	Project (Number/Name) EA8 / <i>Joint Tactical Networking Center</i>

Event Name	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025			
	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
Waveform and Wireless Product Compliance and Certification	[Redacted]																											
<i>JTNC Waveform and Wireless Certification</i>	[Redacted]																											
DoD Information Repository	[Redacted]																											
<i>JTNC Information Repository</i>	[Redacted]																											
Evolve Waveform Standards	[Redacted]																											
<i>JTNC Standards</i>	[Redacted]																											
Analyze Waveforms and Associated Artifacts	[Redacted]																											
<i>JTNC Analyses</i>	[Redacted]																											
Tactical Communications Marketplace (TCM) and Capabilities C	[Redacted]																											
<i>JTNC Innovation</i>	[Redacted]																											
Support to Lead Services initiative	[Redacted]																											
<i>JTNC Joint Activities</i>	[Redacted]																											

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2021 Army		Date: February 2020
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605030A / <i>Joint Tactical Network Center (JTNC)</i>	Project (Number/Name) EA8 / <i>Joint Tactical Networking Center</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Waveform and Wireless Product Compliance and Certification	1	2019	4	2025
DoD Information Repository	1	2019	4	2025
Evolve Waveform Standards	1	2019	4	2025
Analyze Waveforms and Associated Artifacts	1	2019	4	2025
Tactical Communications Marketplace (TCM) and Capabilities Characterization (CC)	1	2019	4	2025
Support to Lead Services initiative	1	2019	4	2025