Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

2040: Research, Development, Test & Evaluation, Army I BA 7: Operational

PE 0310349A / Win-T Increment 2 - Initial Networking

Systems Development

COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	-	4.680	4.723	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.403
EE7: WIN-T Increment 2 - Initial Networking	-	4.680	4.723	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.403

#### A. Mission Description and Budget Item Justification

Warfighter Information Network - Tactical Increment 2 (WIN-T Inc 2) provides the Army with On-The-Move (OTM) networking capability. The WIN-T Inc 2 network retains capabilities delivered by WIN-T Inc 1 and by leveraging proven Government and commercial technologies, adds greater network throughput and automated network management to optimize planning (to include spectrum use), initialization, monitoring and troubleshooting. WIN-T Inc 2 employs Satellite Communications OTM to extend the network in maneuver Brigade Combat Teams to Company-level through FY2018. Using equipment mounted on combat platforms, WIN-T Inc 2 delivers a mobile capability that reduces reliance on fixed infrastructure and allows key leaders to move on the battlefield while retaining situational awareness and mission command capabilities. Using the Highband Networking Radio, with the Highband Networking Waveform and high performance antennas, the WIN-T Inc 2 Line-of-Sight network offers an adaptive 30-Megabit per second aggregate throughput to key leaders in their Command Post or in their vehicle. The WIN-T Inc 2 network is self-forming, which means it automatically creates transmission paths based on terrain and environmental conditions; and self-healing, meaning that transactions and calls even if one or more nodes break down or lose connectivity. This capability offers greater network reliability and better end-to-end connectivity than traditional point-to-point networks. WIN-T Inc 2 introduces the network management capability needed to keep mobile and dispersed forces networked through automated planning, initialization, monitoring, and troubleshooting. Finally, WIN-T Inc 2 adopts "Colorless Core" technology that encrypts both classified user information in the network and minimizes the number of users on the "core" of the network. The Colorless Core allows commanders to utilize the tactical network without fear of the enemy intercepting information. Colorless Core is a technical insertion in the WIN-T Inc 1b and WIN-T Inc 2.

Inc 3 developed NetOps software and NetCentric Waveform (NCW) updates will be inserted into Inc 2 equipped units.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army

Date: February 2018

Appropriation/Budget Activity

2040: Research, Development, Test & Evaluation, Army I BA 7: Operational

Systems Development

R-1 Program Element (Number/Name)

PE 0310349A I Win-T Increment 2 - Initial Networking

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	4.867	4.723	5.833	-	5.833
Current President's Budget	4.680	4.723	0.000	-	0.000
Total Adjustments	-0.187	0.000	-5.833	-	-5.833
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
Congressional Adds	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-	-			
<ul> <li>Adjustments to Budget Years</li> </ul>	-0.187	-	-5.833	-	-5.833

### **Change Summary Explanation**

Program has no FY 2019 RDTE requirement.

Exhibit R-2A, RDT&E Project Ju	stification	: PB 2019 A	rmy							Date: Febr	uary 2018	
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0310349A / Win-T Increment 2 - Initial Networking Project (Number/Name) EE7 / WIN-T Increment 2 - Initial Netw					Networking		
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
EE7: WIN-T Increment 2 - Initial Networking	-	4.680	4.723	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.403
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

### A. Mission Description and Budget Item Justification

Warfighter Information Network - Tactical Increment 2 (WIN-T Inc 2) provides the Army with On-The-Move (OTM) networking capability. The WIN-T Inc 2 network retains capabilities delivered by WIN-T Inc 1 and by leveraging proven Government and commercial technologies, adds greater network throughput and automated network management to optimize planning (to include spectrum use), initialization, monitoring and troubleshooting. WIN-T Inc 2 employs Satellite Communications OTM to extend the network in maneuver Brigade Combat Teams to Company-level through FY2018. Using equipment mounted on combat platforms, WIN-T Inc 2 delivers a mobile capability that reduces reliance on fixed infrastructure and allows key leaders to move on the battlefield while retaining situational awareness and mission command capabilities. Using the Highband Networking Radio, with the Highband Networking Waveform and high performance antennas, the WIN-T Inc 2 Line-of-Sight network offers an adaptive 30-Megabit per second aggregate throughput to key leaders in their Command Post or in their vehicle. The WIN-T Inc 2 network is self-forming, which means it automatically creates transmission paths based on terrain and environmental conditions; and self-healing, meaning that transactions and calls even if one or more nodes break down or lose connectivity. This capability offers greater network reliability and better end-to-end connectivity than traditional point-to-point networks. WIN-T Inc 2 introduces the network management capability needed to keep mobile and dispersed forces networked through automated planning, initialization, monitoring, and troubleshooting. Finally, WIN-T Inc 2 adopts "Colorless Core" technology that encrypts both classified user information in the network and minimizes the number of users on the "core" of the network. The Colorless Core allows commanders to utilize the tactical network without fear of the enemy intercepting information. Colorless Core is a technical insertion in the WIN-T Inc 1b and WIN-T Inc 2.

Inc 3 developed NetOps software and NetCentric Waveform (NCW) updates will be inserted into Inc 2 equipped units.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Product Development	3.783	2.938	-
Description: Product Development			
FY 2018 Plans: FY18 funds development efforts for Technical Insertions.			
FY 2018 to FY 2019 Increase/Decrease Statement: Program has no FY 2019 RDTE requirement.			
Title: Test and Evaluation	0.473	1.354	-

PE 0310349A: Win-T Increment 2 - Initial Networking

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Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0310349A / Win-T Increment 2 - Initial Networking	_	t (Number/N VIN-T Incren	<b>lame)</b> nent 2 - Initia	l Networking
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2017	FY 2018	FY 2019
Description: Test and Evaluation					
FY 2018 Plans: FY18 funds support Operational Testing (JWA 18) and support Next Gen PoF	and SNE efforts.				
FY 2018 to FY 2019 Increase/Decrease Statement: Program has no FY 2019 RDTE requirement.					
Title: Management Services			0.424	0.431	-
Description: Provides system engineering and program management support	t				
FY 2018 Plans: Continues system engineering and program management support.					
FY 2018 to FY 2019 Increase/Decrease Statement: Program has no FY 2019 RDTE requirement.					
	Accomplishments/Planned Programs Su	btotals	4.680	4.723	-

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

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army

		•	FY 2019	FY 2019	FY 2019					<b>Cost To</b>	
<u>Line Item</u>	FY 2017	FY 2018	<b>Base</b>	OCO	<u>Total</u>	FY 2020	FY 2021	FY 2022	FY 2023	<b>Complete</b>	<b>Total Cost</b>
<ul><li>WIN-T Inc 2: WIN-</li></ul>	291.933	420.492	0.000	-	0.000	-	-	-	-	Continuing	Continuing
T Inc 2 Procurement											
<ul> <li>WINT Inc 2 OCO:</li> </ul>	1.288	-	0.000	-	0.000	-	-	-	-	0.000	1.288
WIN-T Inc 2 OCO											
<ul> <li>Inc 2 Spares: WIN-T Inc</li> </ul>	19.808	23.935	0.000	-	0.000	-	-	_	-	Continuing	Continuing
2 Procurement Spares											

### Remarks

Army

## D. Acquisition Strategy

The current Initial Production contract was awarded in 2010 for procurement of Low Rate Initial Production Lots. Lots 1-5a were procured prior to the Full Rate Production (FRP) decision review. Approval for full rate production was granted at the Defense Acquisition Board on 11 May 2015. Lots 5b/6 were the first full rate production lots procured. Lot 7 was procured in 2Q FY 2016. Lot 8 was procured in 1Q FY 2018. Inc 3 developed NetOps software and NetCentric Waveform was tested at Network Integration Evaluation (NIE) 16.2 event and will be inserted into Inc 2 equipped units.

PE 0310349A: Win-T Increment 2 - Initial Networking

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**Date:** February 2018

Exhibit R-2A, RDT&E Project Justification: PB 2019 A	Army	Date: February 2018
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0310349A / Win-T Increment 2 - Initial Networking	Project (Number/Name) EE7 / WIN-T Increment 2 - Initial Networkin
E. Performance Metrics	,	
N/A		

PE 0310349A: Win-T Increment 2 - Initial Networking Army

Exhibit R-3, RDT&E	Project C	ost Analysis: PB 2	019 Army	/								Date:	February	2018	
Appropriation/Budge 2040 / 7	et Activity	1					0349A / V	•	lumber/N rement 2	,	_	(Number	Initial Ne	etworking	
Management Services (\$ in Millions)			FY 2	017	FY 2	018		2019 ase		2019 CO	FY 2019 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 Contrac
Management Services	C/ FFPLOE	Various : Various	0.620	0.424		0.431		-		-		-	0.000	1.475	-
		Subtotal	0.620	0.424		0.431		-		-		-	0.000	1.475	N/
Product Developme	nt (\$ in M	illions)		FY 2	017	FY 2	018		2019 ase		2019 CO	FY 2019 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	Total Cost	Target Value of Contrac
Product Development	MIPR	CERDEC : Various	0.396	3.783		2.938		-		-		-	0.000	7.117	-
		Subtotal	0.396	3.783		2.938		-		-		-	0.000	7.117	N/
Test and Evaluation	(\$ in Milli	ons)		FY 2	017	FY 2	018		2019 ase		2019 CO	FY 2019 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 o Contrac
Test	Various	Various : Various	5.756	0.473		1.354		-		-		-	0.000	7.583	-
		Subtotal	5.756	0.473		1.354		-		-		-	0.000	7.583	N/
			Prior Years	FY 2	017	FY 2	018		2019 ase		2019 CO	FY 2019 Total	Cost To	Total Cost	Target Value o Contrac
		Project Cost Totals	6.772	4.680		4.723		-		-		-	0.000	16.175	N/A

Remarks

PE 0310349A: Win-T Increment 2 - Initial Networking Army

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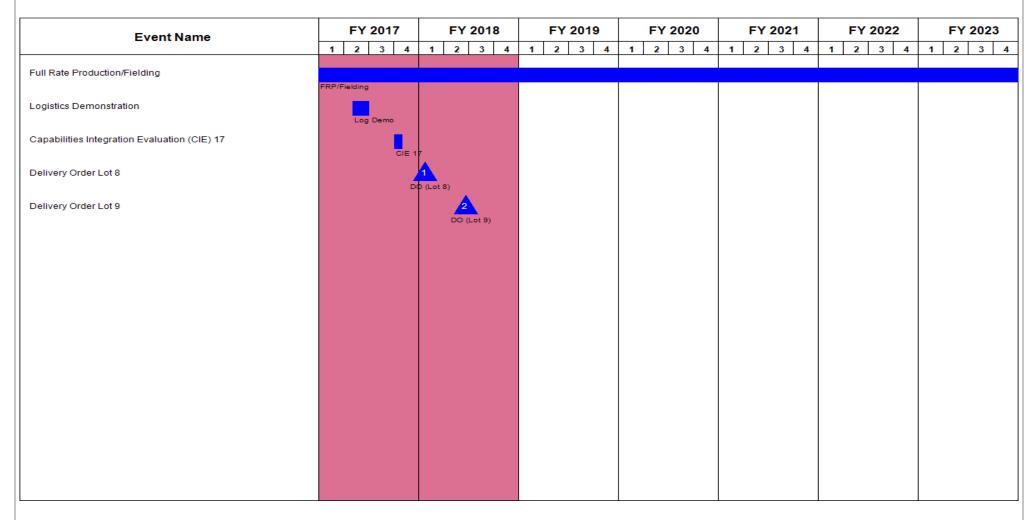


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army			Date: February 2018
,	<b>J</b>	- , (	umber/Name) -T Increment 2 - Initial Networking

# Schedule Details

	Sta	End		
Events	Quarter	Year	Quarter	Year
LRIP Production	2	2010	3	2015
Network Integrated Evaluation 14.1	1	2014	1	2014
Developmental Test 1	2	2014	2	2014
Network Integrated Evaluation 14.2	3	2014	3	2014
Developmental Test 2	3	2014	3	2014
Network Integrated Evaluation 15.1 (FOT&E) (Stryker)	1	2015	1	2015
Log Verification	1	2016	1	2016
Full Rate Production/Fielding	3	2015	4	2029
NIE 16.2 NetOps/NCW	3	2016	3	2016
Logistics Demonstration	2	2017	2	2017
Capabilities Integration Evaluation (CIE) 17	4	2017	4	2017
Delivery Order Lot 8	1	2018	1	2018
Delivery Order Lot 9	2	2018	2	2018