Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

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

PE 0300349A I Win-T Increment 2 - Initial Networking

Systems Development

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	-	3.247	3.800	-	3.800	-	-	-	-	-	7.047
EE7: WIN-T Increment 2 - Initial Networking	-	-	3.247	3.800	-	3.800	-	-	-	-	-	7.047

A. Mission Description and Budget Item Justification

Warfighter Information Network (WIN-T) Increment (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 Beyond Line of Sight (BLOS) Satellite Communications (SATCOM) OTM to extend the network in maneuver Brigade Combat Teams (BCTs) to Company level for the first time. Using equipment mounted on combat platforms, WIN-T Increment 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 (HNR), with the Highband Networking Waveform (HNW) and high performance antennas, the WIN-T Inc 2 Line-of-Sight (LoS) network offers an adaptive 30 Megabit per second (Mbps) aggregate throughput to key leaders in their Command Post or in their vehicle. The WIN-T Inc 2 network is self-forming, which means that it automatically creates transmission paths based on terrain and environmental conditions; and self-healing, meaning that the paths will automatically re-route traffic to complete network transactions and calls even if one or more nodes break down or loses connectivity. This 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 the mobile and dispersed forces networked together through automated planning, initialization, monitoring, and troubleshooting. Finally, WIN-T 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 with

WIN-T Inc 3 mature Network Operations (NetOps) technologies will be inserted into WIN-T Increment 2 units.

FY16 funds support Operational Testing (NIE 16.2) and tech insertion of NetOps Build 5 and upgrade to NetCentric Waveform (NCW) 10.x.

PE 0300349A: Win-T Increment 2 - Initial Networking

Army

Page 1 of 9

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army

Date: February 2015

Appropriation/Budget Activity

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

Systems Development

R-1 Program Element (Number/Name)
PE 0300349A I Win-T Increment 2 - Initial Networking

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	-	3.249	18.209	-	18.209
Current President's Budget	-	3.247	3.800	-	3.800
Total Adjustments	-	-0.002	-14.409	-	-14.409
 Congressional General Reductions 	-	-0.002			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-	-			
 Adjustments to Budget Years 	-	-	-14.409	-	-14.409

Exhibit R-2A, RDT&E Project Ju	stification	: PB 2016 A	Army							Date: Feb	ruary 2015	
Appropriation/Budget Activity 2040 / 7					_	am Elemen 19A / Win-T 3	•	•	Project (N EE7 / WIN		ne) nt 2 - Initial N	letworking
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
EE7: WIN-T Increment 2 - Initial Networking	-	-	3.247	3.800	-	3.800	-	-	-	-	-	7.047
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Warfighter Information Network (WIN-T) Increment (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 Beyond Line of Sight (BLOS)Satellite Communications (SATCOM) OTM to extend the network in maneuver Brigade Combat Teams (BCTs) to Company level for the first time. 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 (HNR), with the Highband Networking Waveform (HNW) and high performance antennas, the WIN-T Inc 2 Line-of-Sight (LoS) network offers an adaptive 30 Megabit per second (Mbps) aggregate throughput to key leaders in their Command Post or in their vehicle. The WIN-T Inc 2 network is self-forming, which means that it automatically creates transmission paths based on terrain and environmental conditions; and self-healing, meaning that the paths will automatically re-route traffic to complete network transactions and calls even if one or more nodes break down or loses connectivity. This 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 the mobile and dispersed forces networked together through automated planning, initialization, monitoring, and troubleshooting. Finally, WIN-T adopts "Colorless Core" technology that encrypts both classified and unclassified 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 ne

WIN-T Inc 3 mature Network Operations (NetOps) technologies will be inserted into WIN-T Increment 2 units.

FY16 funds support Operational Testing (NIE 16.2) and tech insertion of NetOps Build 5 and upgrade to NetCentric Waveform (NCW) 10.x.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
Title: Product Development	-	0.208	1.127
Description: Product Development			
FY 2015 Plans: Development efforts for Technical Insertions.			
FY 2016 Plans:			

PE 0300349A: Win-T Increment 2 - Initial Networking

Army

Page 3 of 9

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: ⊢	ebruary 2015	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	lumber/l	Name)	
2040 / 7	PE 0300349A I Win-T Increment 2 - Initial Networking	EE7 / WIN	I-T Increi	ment 2 - Initia	I Networking
D. A. a. a. a. l. l. l. a. a. (D. l. a. a. d. D. a. a. a. a. (A. l. a. B. l. l. l. a. a.)				E)/ 004E	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
,	F1 2014	F1 2015	F1 2016
Development efforts for Technical Insertions.			
Title: Test and Evaluation	-	3.039	2.673
Description: Test and Evaluation			
FY 2015 Plans: FY15 funding will be used for the second FOT&E activities, including test report required for Full Rate Production Defense Acquisition Board (DAB) and NIE 15.1 which will test Stryker Platform flat bottom variant.			
FY 2016 Plans: FY16 funds support Operational Testing (NIE 16.2) and tech insertion of NetOps Build 5 and upgrade to NetCentric Waveform (NCW) 10.x.			
Accomplishments/Planned Programs Subtotals	-	3.247	3.800

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

			FY 2016	FY 2016	FY 2016					Cost To	
<u>Line Item</u>	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
 WIN-T Inc 2: WIN- 	364.438	361.709	504.463	-	504.463	523.513	617.337	627.618	630.365	Continuing	Continuing
T Inc 2 Procurement											
Inc 2 Spares: WIN-T Inc	21.629	26.100	39.532	-	39.532	22.178	49.562	50.799	124.989	-	334.789
2 Procurement Spares											
 PE 0603782A/367 RDTE: 	1.064	-	-	-	-	-	-	-	-	-	1.064

Research, Development, Test and Evaluation (RDTE) PE 643782/367

Remarks

Army

D. Acquisition Strategy

The Acquisition Decision Memorandum of September 27, 2013 authorized the procurement of 98 additional communications nodes for Low Rate Initial Production (LRIP), bringing the total LRIP quantity to 1,030 communications nodes. The Project Manager (PM) procured the authorized quantities on the current initial production contract (W15P7T-10-D-C007). This contract was awarded in 2010 as a three year contract with three option years. Lots 1, 2, 3, 4 (minus Soldier Network Extensions [SNE]) and Lot 5 training bases have been procured. Lot 4 SNEs and Lot 5 Cls will be awarded in May 2015, following a successful Full Rate Production Decision.

WIN-T Inc 2 provides the Army with On-The-Move (OTM) networking capability. Inc 3 NetOps will be technically inserted into Inc 2 and these inserts will be tested in subsequent Network Integration Evaluation 16.2 (NIE 16.2) events.

PE 0300349A: Win-T Increment 2 - Initial Networking

Page 4 of 9

Exhibit R-2A, RDT&E Project Justification: PB 2016 Arr	my	Date: February 2015
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0300349A / Win-T Increment 2 - Initial Networking	Project (Number/Name) EE7 I WIN-T Increment 2 - Initial Networking
E. Performance Metrics N/A		

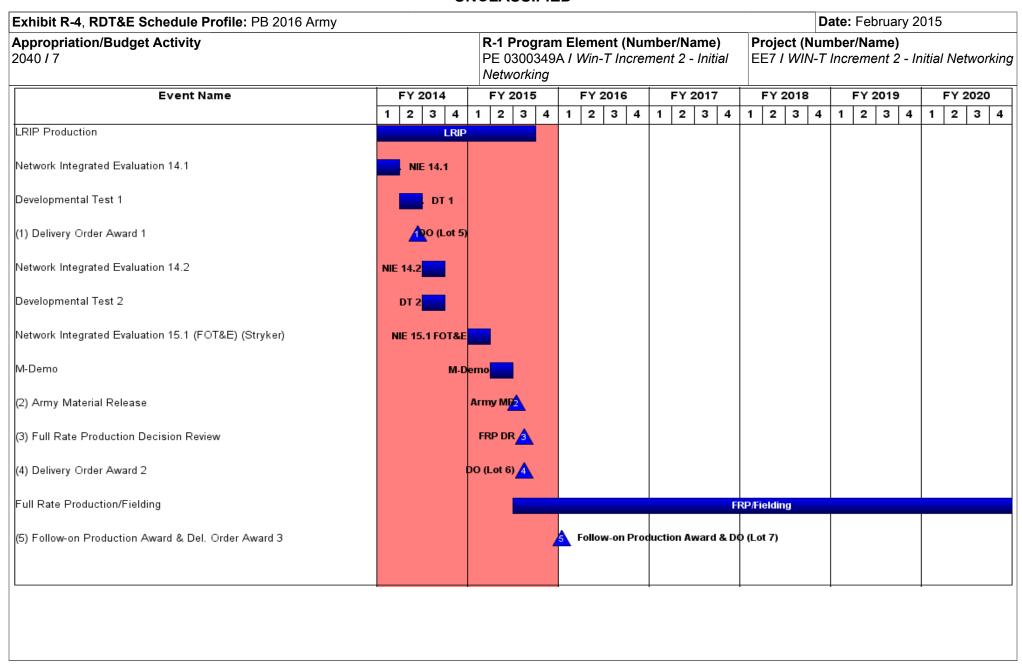
PE 0300349A: Win-T Increment 2 - Initial Networking Army

Exhibit R-3, RDT&E	Project C	ost Analysis: PB 2	2016 Army	/								Date:	February	2015	
Appropriation/Budg 2040 / 7	et Activity	/					0349A / N	ement (N Win-T Incr		•	_	(Number	•	Initial Ne	etworking:
Product Developme	ent (\$ in M	illions)		FY:	2014	FY 2	2015	FY 2 Ba			2016 CO	FY 2016 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 Contract
Product Development	SS/IDIQ	various : various	0.000	-		0.208		1.127		-		1.127	-	1.335	-
		Subtotal	0.000	-		0.208		1.127		-		1.127	-	1.335	-
Test and Evaluation	(\$ in Milli	ions)		FY:	2014	FY 2	2015	FY 2 Ba			2016 CO	FY 2016 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
Test	SS/IDIQ	Various : Various	0.000	-		3.039		2.673		-		2.673	-	5.712	-
		Subtotal	0.000	-		3.039		2.673		-		2.673	-	5.712	-
			Prior Years	FY:	2014	FY 2		FY 2 Ba			2016 CO	FY 2016 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	0.000	-		3.247		3.800		-		3.800	-	7.047	-

Remarks

PE 0300349A: Win-T Increment 2 - Initial Networking Army

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	O.	NCLASSIFIE	- U		
Exhibit R-4, RDT&E Schedule Profile: PB 2016 Ar	my			Date: February	2015
Appropriation/Budget Activity 2040 / 7		R-1 Program PE 0300349 Networking	n Element (Number/Name) A / Win-T Increment 2 - Initial	Project (Number/Name) EE7 / WIN-T Increment 2 -	Initial Networkin
Event Name	FY 2014	FY 2015	FY 2016 FY 2017	FY 2018 FY 2019	FY 2020
	1 2 3 4	1 2 3 4	1 2 3 4 1 2 3 4	1 2 3 4 1 2 3 4	4 1 2 3 4
NIE 16.2 NetOps/NCW		NIE 16.2 Net	Ops/NCW		
(1) Delivery Order Award 4			DO (Lot 8)		
(2) Delivery Order Award 5			DO (Lot s	9	
(3) Contract Award & Delivery Order Award 6			Contract i	Award & DO (Lot 10)	
(4) Delivery Order Award 7				DO (Lot	11) 🚣
			1	+ 1	

PE 0300349A: Win-T Increment 2 - Initial Networking Army

UNCLASSIFIED Page 8 of 9

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
1	, ,	- 3 (umber/Name) -T Increment 2 - Initial Networking

Schedule Details

	Sta	Start				
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		
Delivery Order Award 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		
M-Demo	2	2015	2	2015		
Army Material Release	3	2015	3	2015		
Full Rate Production Decision Review	3	2015	3	2015		
Delivery Order Award 2	3	2015	3	2015		
Full Rate Production/Fielding	3	2015	4	2020		
Follow-on Production Award & Del. Order Award 3	1	2016	1	2016		
NIE 16.2 NetOps/NCW	3	2016	3	2016		
Delivery Order Award 4	1	2017	1	2017		
Delivery Order Award 5	1	2018	1	2018		
Contract Award & Delivery Order Award 6	1	2019	1	2019		
Delivery Order Award 7	1	2020	1	2020		