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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605350A / <i>WIN-T Increment 3 - Full Networking</i>
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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	-	-	113.155	39.700	-	39.700	-	-	-	-	-	152.855
EE8: <i>WIN-T Increment 3 - Full Networking</i>	-	-	113.155	39.700	-	39.700	-	-	-	-	-	152.855

Note

PE 0605350/EE8 was formerly 0603782/372 in FY 2014 and prior. The Warfighter Information Network – Tactical (WIN-T) Increment (Inc) 3 program has been de-scoped to a software-only program due to FY 2015-19 budgetary constraints.

A. Mission Description and Budget Item Justification

The Warfighter Information Network – Tactical (WIN-T) Increment (Inc) 3 program has been de-scoped to a software-only program. WIN-T Inc 3 develops the Network Operations (NetOps) software to meet the Army's Network Convergence goals. NetOps provides the monitoring, control and planning tools to ensure management of the voice, data and internet transport networks. The NetOps software will also provide Information Assurance and Network Centric Enterprise Services. This allows for seamless integration of the tactical network planning, management, monitoring, and defense for the Signal staff. These NetOps improvements simplify the management of the network and increase the automation of tools and reporting. The developed NetOps software enhancements will be provided as a technical insertion to WIN-T Incs 1 and 2.

Inc 3 also develops the enhanced Net Centric Waveform (NCW) version 10.x for increased throughput capability beyond line of sight (BLOS) satellite communication and the Highband Networking Waveform (HNW) version 3.0 for line of sight (LOS) communications. NCW version 10.x testing will support Army Strategic Command certification of the waveform for use on Wideband Global Satellites and subsequent insertion into WIN-T Inc 1 and Inc 2. HNW version 3.0 will be delivered to the Joint Tactical Networking Center (JTNC) Information Repository for commercial development application. Both NCW and HNW provide improved network capacity and robustness.

FY 2016 continues funding the Engineering and Manufacturing Development (EMD) phase of the program, culminating the development with Operational Testing of NetOps Builds and NCW 10.x at the Network Integration Evaluation exercise 16.2 and execution of an over the air demonstration of the HNW 3.0 waveform using the EMD prototype radios and antennas prior to submission the waveform repository.

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B. Program Change Summary (\$ in Millions)	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	-	113.210	39.700	-	39.700
Current President's Budget	-	113.155	39.700	-	39.700
Total Adjustments	-	-0.055	-	-	-
• Congressional General Reductions	-	-0.055			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605350A / WIN-T Increment 3 - Full Networking				Project (Number/Name) EE8 / WIN-T Increment 3 - Full Networking			
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
EE8: WIN-T Increment 3 - Full Networking	-	-	113.155	39.700	-	39.700	-	-	-	-	-	152.855
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program was funded in PE 0603782A, project 372 in FY 2014 and prior.

A. Mission Description and Budget Item Justification

The Warfighter Information Network – Tactical (WIN-T) Increment (Inc) 3 program has been de-scoped to a software-only program. WIN-T Inc 3 develops the Network Operations (NetOps) software to meet the Army's Network Convergence goals. NetOps provides the monitoring, control and planning tools to ensure management of the voice, data and internet transport networks. The NetOps software will also provide Information Assurance and Network Centric Enterprise Services. This allows for seamless integration of the tactical network planning, management, monitoring, and defense for the Signal staff. These NetOps improvements simplify the management of the network and increase the automation of tools and reporting. The developed NetOps software enhancements will be provided as a technical insertion to WIN-T Incs 1 and 2.

WIN-T Inc 3 also develops the enhanced Net Centric Waveform (NCW) version 10.x for increased throughput capability beyond line of sight (BLOS) satellite communication and the Highband Networking Waveform (HNW) version 3.0 for line of sight (LOS) communications. NCW version 10.x testing will support Army Strategic Command certification of the waveform for use on Wideband Global Satellites and subsequent insertion into WIN-T Inc 1 and Inc 2. HNW version 3.0 will be delivered to the Joint Tactical Networking Center (JTNC) Information Repository. Both NCW and HNW provide improved network capacity and robustness.

FY 2016 continues funding the Engineering and Manufacturing Development (EMD) phase of the program, culminating the development with Operational Testing of NetOps Builds and NCW 10.x at the Network Integration Evaluation exercise 16.2 and execution of an over the air demonstration of the HNW 3.0 waveform using the EMD prototype radios and antennas prior to submission the waveform repository.

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

	FY 2014	FY 2015	FY 2016
Title: Increment 3 Product Development	-	86.109	12.369
Description: Increment 3 Engineering Manufacturing Development (EMD) continues development of the Inc 3 system software development and prototype manufacturing of test assets for the Inc 3 system.			
FY 2015 Plans: Continues development of NetOps software build 4/5 , completes the Highband Networking Waveform (HNW) version 3.0 development and Net Centric Waveform (NCW) version 10.x certification. Manufacture the NetOps and waveform specific			

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605350A / WIN-T Increment 3 - Full Networking	Project (Number/Name) EE8 / WIN-T Increment 3 - Full Networking

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
hardware for test assets. This will start the integration efforts of HNW 3.0 on limited surrogate ground and air platforms in order to conduct an over the air demonstration of HNW 3.0 capability. FY 2016 Plans: Continues funding the EMD phase of the program to prepare for Operational Testing of NetOps builds and NCW 10.x at the Network Integration Evaluation (NIE) exercise 16.2 and execution of an over the air demonstration of the HNW 3.0 waveform using the EMD prototype radios and antennas prior to submission to the waveform repository.			
Title: Test and Engineering Description: Test and Evaluation FY 2015 Plans: FY15 T&E funds are required to continue testing of the NetOps Builds through Functional Qualification Testing (FQT), conduct NCW 10.x testing, conduct HNW 3.0 parameter analysis and develop multi-node emulator to support on-going scalability work. FY 2016 Plans: FY 2016 continues funding the Engineering and Manufacturing Development (EMD) phase of the program, funds Operational Testing of NetOps Builds at the Network Integration Evaluation exercise 16.2 and funds an Over-the-Air (OTA) demonstration of the Highband Networking Waveform (HNW) 3.0 waveform using the EMD prototype radios and antennas prior to submission the waveform repository.	-	16.516	17.484
Title: Management Services Description: Provides System Engineering and Program Management Support. FY 2015 Plans: Continues System Engineering and Program Management Support. FY 2016 Plans: Continues System Engineering and Program Management Support.	-	10.530	9.847
Accomplishments/Planned Programs Subtotals	-	113.155	39.700

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• Inc 3 RDTE: RDTE PE 0603782/372	117.192	-	-	-	-	-	-	-	-	-	117.192

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605350A / WIN-T Increment 3 - Full Networking	Project (Number/Name) EE8 / WIN-T Increment 3 - Full Networking

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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Remarks

D. Acquisition Strategy

An evolutionary acquisition strategy is being utilized to provide for the timely insertion of new technologies into Army communication systems by adhering to the basic principles of the DoD Modular Open Systems Approach (MOSA). This allows the Army to keep pace with changing commercial technology and maintain required interoperability with other joint, strategic and commercial standards-based networks. Applying integrated Network Operations (NetOps) capability, WIN-T provides the capability to manage, prioritize, and protect information. It ensures NetOps commonality with Joint, Allied, Coalition, Current Force, and Commercial voice and data networks.

The program is presently in its Engineering, Manufacturing, and Development (EMD) phase, as WIN-T Inc 3 technology is being tested and released over time and will be inserted into WIN-T Inc 1 and Inc 2.

The Acquisition Decision Memorandum (ADM) dated 30 May 2014 directed the restructure of Inc 3 program. Software development for NetOps Build 4/5 and NCW 10.x is to be completed in FY 2015 and testing in FY 2016. The ADM allowed for the development and demonstration of HNW 3.0. The program will also cease all efforts associated with development of Inc 3 unique hardware items.

An updated Acquisition Program Baseline (APB) was approved by the AAE on 15 Sep 14 and shows no Nunn-McCurdy risk due to the program quantity being zero. Likewise, the Program Acquisition Unit Cost/Average Procurement Unit Cost (PAUC/APUC) are no longer applicable.

E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
2040 / 5				PE 0605350A / WIN-T Increment 3 - Full Networking				EE8 / WIN-T Increment 3 - Full Networking							
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		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
Program Management Support	C/FFPLOE	Various : Various	0.000	-		10.530		9.847		-		9.847	-	20.377	-
Subtotal			0.000	-		10.530		9.847		-		9.847	-	20.377	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		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
Increment 3 Engineering Manufacturing and Development	SS/CPFF	General Dynamics C4 Systems Inc : Taunton, MA	0.000	-		83.374		12.369		-		12.369	-	95.743	-
Prototype Manufacturing	SS/CPFF	General Dynamics C4 Systems Inc : Taunton, MA	0.000	-		2.735		-		-		-	-	2.735	-
Subtotal			0.000	-		86.109		12.369		-		12.369	-	98.478	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		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
Testing	SS/BA	Various : Various	0.000	-		16.516		17.484		-		17.484	-	34.000	-
Subtotal			0.000	-		16.516		17.484		-		17.484	-	34.000	-
Project Cost Totals			0.000	-		113.155		39.700		-		39.700	-	152.855	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605350A / WIN-T Increment 3 - Full Networking	Project (Number/Name) EE8 / WIN-T Increment 3 - Full Networking
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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	1	2	3	4
NCW 10.x CUT/SWIT	[Bar]				[Bar]																							
Build 3e (Patches)	[Bar]				[Bar]																							
HNW 3.0 CUT	[Bar]				[Bar]																							
NetOps Build 4/5	[Bar]				[Bar]				[Bar]																			
(1) Follow-On Engineering Manufacturing Development Contract Award	[Bar]				[Bar]																							
(2) Critical Design Review	[Bar]				[Bar]																							
HNW 3.0 SWIT	[Bar]				[Bar]																							
NCW 10.x Certification	[Bar]				[Bar]																							
CBM+	[Bar]				[Bar]																							
Build 4e (NCW NetOps)	[Bar]				[Bar]																							
CBM+ Demo at NIE 14.2	[Bar]				[Bar]																							
NCW DVT	[Bar]				[Bar]																							
(3) Revised APB	[Bar]				[Bar]																							

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605350A / WIN-T Increment 3 - Full Networking	Project (Number/Name) EE8 / WIN-T Increment 3 - Full Networking
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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	1	2	3	4
HNW Demo Prep	HNW Demo Prep				[Bar]																							
FQT 1					FQT 1 [Bar]																							
HNW FQT					HNW FQT [Bar]																							
(1) Task Order 1					TO 1 [Bar]																							
NCW GDT					NCW GDT [Bar]																							
(2) Task Order 2					TO 2 [Bar]																							
FQT 2					FQT 2 [Bar]																							
FQT 3									FQT 3 [Bar]																			
HNW Demo									HNW Demo [Bar]																			
NIE 16.2 (NetOps/NCW)									NIE 16.2 (NetOps/NCW) [Bar]																			

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605350A / WIN-T Increment 3 - Full Networking	Project (Number/Name) EE8 / WIN-T Increment 3 - Full Networking

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
NCW 10.x CUT/SWIT	4	2012	1	2014
Build 3e (Patches)	1	2013	2	2014
HNW 3.0 CUT	1	2014	1	2014
NetOps Build 4/5	1	2014	3	2016
Follow-On Engineering Manufacturing Development Contract Award	1	2014	1	2014
Critical Design Review	1	2014	1	2014
HNW 3.0 SWIT	1	2014	1	2015
NCW 10.x Certification	1	2014	3	2015
CBM+	2	2014	3	2014
Build 4e (NCW NetOps)	2	2014	2	2015
CBM+ Demo at NIE 14.2	3	2014	3	2014
NCW DVT	3	2014	4	2014
Revised APB	4	2014	4	2014
HNW Demo Prep	1	2015	2	2016
FQT 1	1	2015	1	2015
HNW FQT	1	2015	1	2015
Task Order 1	1	2015	1	2015
NCW GDT	3	2015	3	2015
Task Order 2	3	2015	3	2015
FQT 2	3	2015	3	2015
FQT 3	1	2016	1	2016
HNW Demo	2	2016	3	2016

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015	
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Events	Start		End	
	Quarter	Year	Quarter	Year
NIE 16.2 (NetOps/NCW)	3	2016	3	2016