Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-349

WIN-T Increment 2 - Program Overview

Warfighter Information Network-Tactical Increment 2 (WIN-T Inc 2)

As of FY 2015 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Report Documentation Page

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Selected Acquisition Report-SAR

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Common Acronyms and Abbreviations

Acq O&M - Acquisition-Related Operations and Maintenance
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
BA - Budget Authority/Budget Activity
BY - Base Year
DAMIR - Defense Acquisition Management Information Retrieval
Dev Est - Development Estimate
DoD - Department of Defense
DSN - Defense Switched Network
Econ - Economic
Eng - Engineering
Est - Estimating
FMS - Foreign Military Sales
FY - Fiscal Year
IOC - Initial Operational Capability
$K - Thousands of Dollars
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MILCON - Military Construction
N/A - Not Applicable
O&S - Operating and Support
Oth - Other
PAUC - Program Acquisition Unit Cost
PB - President's Budget
PE - Program Element
Proc - Procurement
Prod Est - Production Estimate
QR - Quantity Related
Qty - Quantity
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
Sch - Schedule
Spt - Support
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting

Program Information

Program Name

Warfighter Information Network-Tactical Increment 2 (WIN-T Inc 2)

DoD Component

Army

Responsible Office

Responsible Office

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References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acqusition Program Baseline (APB) dated March 8, 2010

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated May 8, 2013

Mission and Description

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 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, 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 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 Inc 2 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 network without fear of the enemy intercepting information. Colorless Core is a technical insertion in the WIN-T Inc 1b network which enables information sharing between WIN-T Inc 1b and WIN-T Inc 2.

WIN-T Inc 3 Network Operations software will be inserted into WIN-T Inc 2 units.

Executive Summary

WIN-T Inc 2 participated in a Defense Acquisition Board on September 19, 2013. A subsequent Acquisition Decision Memorandum (ADM) was signed on September 27, 2013. The ADM authorized the Army to accept Lot 3 articles, procure Lot 4 articles excluding Soldier Network Extensions (SNE) and to procure the complete set of Lot 5 Training Base articles. It also required that "before any additional production is approved, additional testing and a Follow-on Operational Test and Evaluation (FOT&E) must demonstrate: (1) the Point of Presence (PoP) meets threshold reliability requirements; (2) significant reduction in the complexity of start-up, reboot, troubleshooting, and shutdown procedures for the SNE and PoP; (3) significant reduction in the complexity of the SNE Combat Net Radio (CNR) Gateway operations." The program office must also submit the following: A plan for conducting additional developmental testing, submit to Director, Operational Test and Evaluation a revised Test and Evaluation Master Plan (TEMP) which outlines the FOT&E, update the Army Cost Position and APB, assess the effectiveness of integrating Joint Battle Command-Platform Mission Command Applications and WIN-T on the Multi-Domain Atlas, and develop a plan for implementing Mission Command applications to leverage satellite communications. A Full Rate Production (FRP) decision review will be requested in May 2015 once all of these actions are completed.

A contract Delivery Order (DO) was sent to General Dynamics C4 Systems, Taunton, Massachusetts in 4th Quarter FY 2013. This DO procured Lot 4 excluding SNEs as directed by the ADM of September 27, 2013. The program is currently fully funded.

An Army Configuration Steering Board (CSB) meeting held on November 7, 2013 approved the de-scope of the WIN-T Inc 3 program to focus on Network Operations and authorized completion of the waveforms development efforts and to transfer procurement of Army assets to WIN-T Inc 2 beyond FY 2015 PB.

The ADM of September 27, 2013 required that the program update its APB. The program office is in the process of updating its cost estimate and will follow with an updated APB that reflects additional test events and a delayed FRP decision review.

The schedule breach is due to the ADM requirement to complete additional testing prior to a FRP decision.

The procurement cost breach is due to Army CSB direction to increase quantities.

The O&S cost breach is due to an increase in quantities as directed by the Army CSB direction.

A Developmental Test (DT) plan was submitted for review. DT is planned for 2nd Quarter and 3rd Quarter FY 2014. The ADM-directed FOT&E is planned for 1st Quarter FY 2015, coincident with Network Integration Evaluation 15.1. An addendum to the TEMP is in progress and is due to the Office of the Secretary of Defense in June 2014 prior to the FOT&E.

There are no significant software-related issues associated with this program at this time.

Threshold Breaches

APB Breaches		
Schedule		☑
Performance		☐
Cost	RDT&E	☐
	Procurement	☑
	MILCON	☐
	Acq O&M	☐
O&S Cost		☑
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Explanation of Breach

The program office is in the process of updating its cost estimate and will follow with an updated APB that reflects additional test events, a delayed Full Rate Production (FRP) decision review, and fact of life changes.

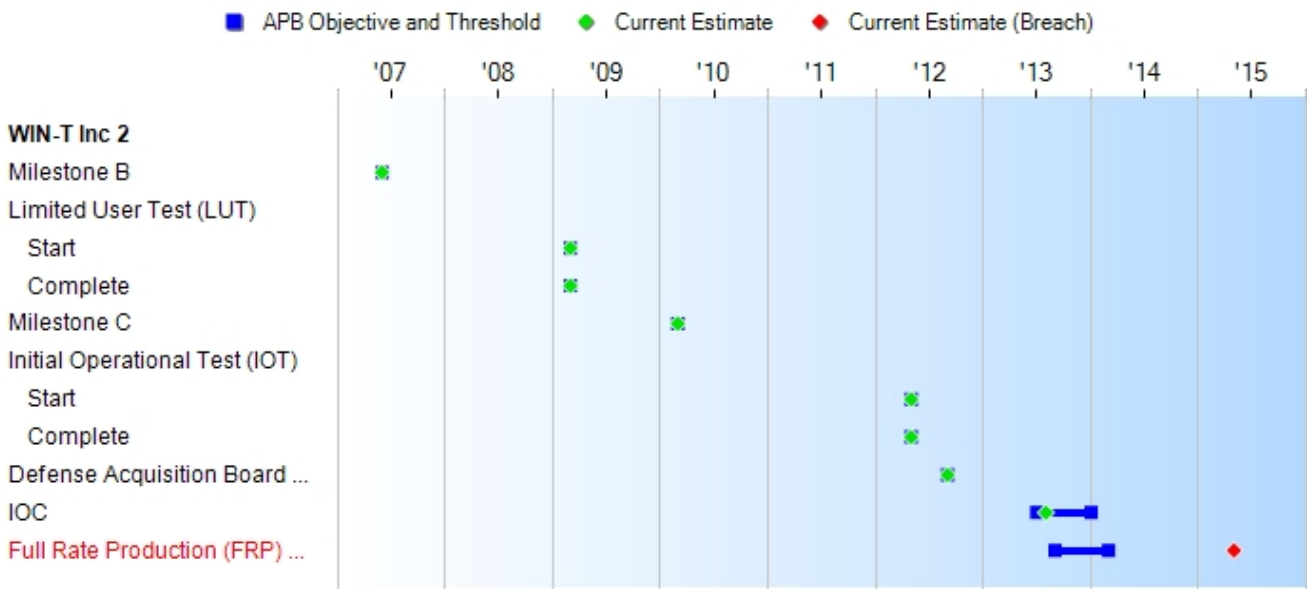
An Army Configuration Steering Board (CSB) meeting held on November 7, 2013 approved the de-scope of the WIN-T Inc 3 program to focus on Network Operations and completion of the waveform development efforts and to transfer procurement of Army assets to WIN-T Inc 2 beyond FY 2015 PB.

The schedule breach is due to the ADM requirement to complete additional testing prior to an FRP decision.

The procurement cost breach is due to Army CSB direction to increase quantities.

The O&S cost breach is due to an increase in quantities per Army CSB direction.

Schedule



Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	
Milestone B	JUN 2007	JUN 2007	JUN 2007	JUN 2007	
Limited User Test (LUT)					
Start	MAR 2009	MAR 2009	MAR 2009	MAR 2009	
Complete	MAR 2009	MAR 2009	MAR 2009	MAR 2009	
Milestone C	FEB 2010	MAR 2010	MAR 2010	MAR 2010	
Initial Operational Test (IOT)					
Start	NOV 2011	MAY 2012	MAY 2012	MAY 2012	
Complete	NOV 2011	MAY 2012	MAY 2012	MAY 2012	
Defense Acquisition Board Review	N/A	SEP 2012	SEP 2012	SEP 2012	
IOC	NOV 2012	JUL 2013	JAN 2014	AUG 2013	(Ch-1)
Full Rate Production (FRP) Decision Review	FEB 2012	SEP 2013	MAR 2014	**MAY 2015**[1]	(Ch-2)

[1] *APB Breach*

Change Explanations

(Ch-1) The IOC current estimate changed from July 2013 to August 2013 to reflect the August 29, 2013 approval memorandum from TCM N&S.

(Ch-2) The FRP Decision Review current estimate changed from September 2013 to May 2015 based on direction in the September 27, 2013 ADM to complete additional developmental testing and a FOT&E prior to a FRP Decision Review. A revised APB will be provided based on future resourcing decisions.

Acronyms and Abbreviations

ADM - Acquisition Decision Memorandum
FOT&E - Follow-On Operational Test and Evaluation
FRP - Full Rate Production
N&S - Networks and Services
TCM - Training and Doctrine Command Capability Manager

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Net Ready	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IA requirements including	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IA requirements including	The system must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for transition to Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IA requirements	Achieved threshold at IOT.	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IA requirements including

	availability, integrity, authenticat-ion, confidential-ity, and non-repudiation, issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.	availability, integrity, authentica-tion, confidential-ity, and non-repudiation, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.	including availability, integrity, authentica-tion, confidential-ity, and non-repudiation, and issuance of an IATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.		availability, integrity, authentica-tion, confidential-ity, and nonrepudi-ation, issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.
Network Management	Increment 2 will enable the BCT S6 NetOps managers to plan, monitor, prioritize, control and visually display (e.g., current	Increment 2 will enable the BCT S6 NetOps managers to plan, monitor, prioritize, control and visually display (e.g., current	Increment 2 will enable the BCT S6 NetOps managers to plan, monitor, prioritize, control and visually display (e.g., current	Achieved threshold at IOT.	Inc 2 will enable the BCT S6 NetOps managers to plan, monitor, prioritize, control and visually display (e.g., current

	network status and connectivity) its WIN-T equipped units (Bde, Bn, Co) that connect: Objective: Top Secret, Secret, and Unclassified users.	network status and connectivity) its WIN-T equipped units (Bde, Bn, Co) that connect: Objective: Top Secret, Secret, and Unclassified users.	network status and connectivity) its WIN-T equipped units (Bde, Bn, Co) that connect: Threshold: Secret and Unclassified users.		network status and connectivity) its WIN-T equipped units (Bde, Bn, Co) that connect: Objective: Top Secret, Secret, and Unclassified users.
Information Dissemination	Increment 2 will provide a transport capability that enables battle command and situational awareness data message information to be exchanged within a BCT's WIN-T Increment 2 enabled ATH platforms and to its WIN-T enabled ATH Divisional HQ: Objective: Critical survival information (Category 1) delivery in <0.5 seconds (95% of completed messages)	Increment 2 will provide a transport capability that enables battle command and situational awareness data message information to be exchanged within a BCT's WIN-T Increment 2 enabled ATH platforms and to its WIN-T enabled ATH Divisional HQ: Objective: Critical survival information (Category 1) delivery in <0.5 seconds (95% of completed messages)	Increment 2 will provide a transport capability that enables battle command and situational awareness data message information to be exchanged within a BCT's WIN-T Increment 2 enabled ATH platforms and to its WIN-T enabled ATH Divisional HQ: Threshold: Critical survival information (Category 1) delivery in < or = to 5 seconds (95% of completed messages)	Achieved threshold at IOT.	Inc 2 will provide a transport capability that enables battle command and situational awareness data message information to be exchanged within a BCT's WIN-T Inc 2 enabled ATH platforms and to its WIN-T enabled ATH Divisional HQ: Objective: Critical survival information (Category 1) delivery in <0.5 seconds (95% of completed messages)

	and time sensitive information (Category 2) in <1 seconds (92% of completed messages).	and time sensitive information (Category 2) in <1 seconds (92% of completed messages).	and time sensitive information (Category 2) in <8 seconds (92% of completed messages).		and time sensitive information (Category 2) in <1 seconds (92% of completed messages).	
Force Protection Armor required for protection of passengers inside the vehicle cab from small arms fire, mines, and other anti-vehicle/personnel threats	Increment 2 unique vehicles require armor kits for protection of passengers inside the vehicle cab from small arms fire, mines, and other anti-vehicle/ personnel	Increment 2 unique vehicles require armor kits for protection of passengers inside the vehicle cab from small arms fire, mines, and other anti-vehicle/ personnel threats (IAW JROCM 120-05).	Increment 2 unique vehicles require armor kits for protection of passengers inside the vehicle cab from small arms fire, mines, and other anti-vehicle/ personnel threats (IAW JROCM 120-05).	Achieved threshold at IOT.	Increment 2 unique vehicles require armor kits for protection of passengers inside the vehicle cab from small arms fire, mines, and other anti-vehicle/personnel threats (IAW JROCM 120-05).	(Ch-1)
Mobile Throughput For Brigade/Battalion maneuver commanders and their CPs	Increment 2 will enable selected warfighters (Bde/Bn maneuver commanders and their CPs) to conduct decisive operations while moving "cross-country" utilizing satellite communicat-ions: Objective: Ground vehicles: from 0 to 45	Increment 2 will enable selected warfighters (Bde/Bn maneuver commanders and their CPs) to conduct decisive operations while moving "cross-country" utilizing satellite communicat-ions: Objective: Ground vehicles: from 0 to 45	Increment 2 will enable selected warfighters (Bde/Bn maneuver commanders and their CPs) to conduct decisive operations while moving "cross-country" utilizing satellite communicat-ions: Threshold: Ground vehicles: from 0 to 25	Achieved threshold at PQT-G (DT) in 2011. User feedback from IOT indicated potential mobility and connectivity issues. Mobility and connectivity issues demonstrated significant improvement at the FOT in May 2013.	Inc 2 will enable selected warfighters (Bde/Bn maneuver commanders and their CPs) to conduct decisive operations while moving "cross- country" utilizing satellite communica-tions: Objective: Ground vehicles: from 0 to 45	

	mph with 4 Mbps per link available for user data.	mph with 4 Mbps per link available for user data.	mph with 256 Kbps per link available for user data.		mph with 4 Mbps per link available for user data.

Requirements Source

Capability Production Document (CPD) dated February 14, 2012

Change Explanations

(Ch-1) Relief from this Key Performance Parameter was granted in Revision 2 of the CPD per September 10, 2013 Army G3/5/7 Memorandum.

Memo

A WIN-T Inc 2 CPD was approved by the JROC on November 25, 2008. Revision 1 to the approved CPD was approved on February 14, 2012. The JROCM 118-13 approved changes as of June 17, 2013. The JROCM 143-13 approved additional changes as of August 13, 2013. Revision 2 to the approved CPD was approved on September 10, 2013. This section will be updated in the next annual report to remove the Force Protection KPP once a revised APB is approved.

Demonstrated performance is as demonstrated at the PQT-G of 2011 and the IOT of May 2012 and documented in the Operational Test Agency Evaluation Report for the WIN-T Inc 2 dated July 2012.

Acronyms and Abbreviations

ATH - At The Halt
ATO - Authority to Operate
BCT - Brigade Combat Team
Bde - Brigade
Bn - Battalion
Co - Company
CP - Command Post
CPD - Capability Production Document
DAA - Designated Approving Authority
DISR - Department of Defense Information Technology Standards and Profile Registry
DT - Development Test
FOT - Follow-On Test
GIG - Global Information Grid
HQ - Headquarters
IA - Information Assurance
IATO - Interim Authority to Operate
IAW - In Accordance With
IOT - Initial Operational Test
IT - Information Technology
JROC - Joint Requirements Oversight Council
JROCM - Joint Requirements Oversight Council Memorandum
Kbps - Kilobits Per Second
KIPs - Key Interface Profiles
KPP - Key Performance Parameter
Mbps - Megabits Per Second
Mph - Miles Per Hour
NCOW - Network Centric Operations and Warfare
NetOps - Network Operations
PQT-G - Production Qualification Testing - Government
RM - Reference Model
TV - Technical View

Track to Budget

RDT&E

Appn		BA	PE		
Army	2040	07	0310349A		
	Project		**Name**		
	EE7		WIN-T Inc 2 Initial Networking		
	Notes:		This is not a new start in FY 2015. This effort is funded under 0603782A Project 367 through FY 2014. It is funded under PE 0310349A, Project EE7 in the out years.		
Army	2040	04	0603782A		
	Project		**Name**		
	355		WIN-T DEM/VAL/Warfighter Information Network Tactical - DEM/VAL	(Shared)	(Sunk)
	367		WIN-T DEM/VAL/Warfighter Information Network Tactical - DEM/VAL		(Sunk)
	Notes:		Project 367 began in FY 2009 for WIN-T Inc 2 exclusively. Prior to FY 2009 Project 355 was a shared line for both WIN-T Inc 2 and WIN-T Inc 3.		

Procurement

Appn		BA	PE
Army	2035	04	0310706A
	Line Item		**Name**
	BS9741		WIN-T INCREMENT 2 Spares
Army	2035	02	0310706A
	Line Item		**Name**
	BW7115		Increment 2 Initial Networking On The Move

The parent Line Item for the WIN-T Inc 2 Spares (BS9741) is BS9100. The parent Line Item for the WIN-T Inc 2 procurement (BW7115) is BW7100.

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY2010 $M			BY2010 $M	TY $M		
	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	264.7	274.6	302.4	273.1	266.5	278.9	276.7
Procurement	4421.3	4134.3	4547.8	**11237.7** [1]	4730.4	4576.2	13830.6
Flyaway	--	--	--	7732.2	--	--	9404.2
Recurring	--	--	--	7389.6	--	--	9021.1
Non Recurring	--	--	--	342.6	--	--	383.1
Support	--	--	--	3505.5	--	--	4426.4
Other Support	--	--	--	3161.3	--	--	4002.6
Initial Spares	--	--	--	344.2	--	--	423.8
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	4686.0	4408.9	N/A	11510.8	4996.9	4855.1	14107.3

[1] ***APB Breach***

Confidence Level for Current APB Cost 50% -

The program is considered a low risk program at this point in its acquisition life cycle. The variability of funding and thus changes in procurement quantity are the only identifiable risks. The Army Cost Position (ACP) does add risk dollars to the WIN-T Inc 2 software procurement and maintenance estimates, based on actual fluctuations experienced in software procurement and maintenance activities.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	56	56	56
Procurement	2160	1860	5267
Total	2216	1916	5323

Unit of measure is a combination of communications nodes, which vary in capability depending upon the increment of WIN-T being executed. WIN-T Inc 2 unit of measure is comprised of Tactical Communications Nodes, Points of Presence and Soldier Network Extensions.

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2015 President's Budget / December 2013 SAR (TY$ M)

Appropriation	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
RDT&E	254.2	1.1	3.2	18.2	0.0	0.0	0.0	0.0	276.7
Procurement	2072.3	478.8	500.8	672.5	657.5	696.1	361.9	8390.7	13830.6
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2015 Total	2326.5	479.9	504.0	690.7	657.5	696.1	361.9	8390.7	14107.3
PB 2014 Total	2676.6	713.6	657.3	627.1	233.0	228.6	1.2	0.0	5137.4
Delta	-350.1	-233.7	-153.3	63.6	424.5	467.5	360.7	8390.7	8969.9

Quantity	Undistributed	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
Development	56	0	0	0	0	0	0	0	0	56
Production	0	1108	146	156	266	250	249	15	3077	5267
PB 2015 Total	56	1108	146	156	266	250	249	15	3077	5323
PB 2014 Total	56	1439	290	241	130	0	0	0	0	2156
Delta	0	-331	-144	-85	136	250	249	15	3077	3167

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY$
2040 | RDT&E | Research, Development, Test, and Evaluation, Army

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2007	--	--	--	--	--	--	8.2
2008	--	--	--	--	--	--	107.6
2009	--	--	--	--	--	--	91.3
2010	--	--	--	--	--	--	18.3
2011	--	--	--	--	--	--	16.8
2012	--	--	--	--	--	--	9.3
2013	--	--	--	--	--	--	2.7
2014	--	--	--	--	--	--	1.1
2015	--	--	--	--	--	--	3.2
2016	--	--	--	--	--	--	18.2
Subtotal	**56**	**--**	**--**	**--**	**--**	**--**	**276.7**

Annual Funding BY$
2040 | RDT&E | Research, Development, Test, and Evaluation, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2010 $M	Non End Item Recurring Flyaway BY 2010 $M	Non Recurring Flyaway BY 2010 $M	Total Flyaway BY 2010 $M	Total Support BY 2010 $M	Total Program BY 2010 $M
2007	--	--	--	--	--	--	8.4
2008	--	--	--	--	--	--	108.6
2009	--	--	--	--	--	--	91.0
2010	--	--	--	--	--	--	18.0
2011	--	--	--	--	--	--	16.2
2012	--	--	--	--	--	--	8.8
2013	--	--	--	--	--	--	2.5
2014	--	--	--	--	--	--	1.0
2015	--	--	--	--	--	--	2.8
2016	--	--	--	--	--	--	15.8
Subtotal	**56**	**--**	**--**	**--**	**--**	**--**	**273.1**

Annual Funding TY$
2035 | Procurement | Other Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2009	56	135.8	--	--	135.8	0.1	135.9
2010	248	333.1	--	71.9	405.0	62.2	467.2
2011	96	185.1	--	74.4	259.5	80.7	340.2
2012	532	543.1	--	44.5	587.6	105.1	692.7
2013	176	315.0	--	19.8	334.8	101.5	436.3
2014	146	310.4	--	20.2	330.6	148.2	478.8
2015	156	297.1	--	31.3	328.4	172.4	500.8
2016	266	532.2	--	10.0	542.2	130.3	672.5
2017	250	424.4	--	10.2	434.6	222.9	657.5
2018	249	462.8	--	10.4	473.2	222.9	696.1
2019	15	98.9	--	10.6	109.5	252.4	361.9
2020	375	650.6	--	10.8	661.4	229.4	890.8
2021	606	991.2	--	11.0	1002.2	300.8	1303.0
2022	679	1139.8	--	11.3	1151.1	439.8	1590.9
2023	592	1026.0	--	11.5	1037.5	426.4	1463.9
2024	595	1057.2	--	11.7	1068.9	456.7	1525.6
2025	230	518.4	--	11.9	530.3	491.0	1021.3
2026	--	--	--	11.6	11.6	583.6	595.2
Subtotal	**5267**	**9021.1**	**--**	**383.1**	**9404.2**	**4426.4**	**13830.6**

Annual Funding BY$
2035 | Procurement | Other Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2010 $M	Non End Item Recurring Flyaway BY 2010 $M	Non Recurring Flyaway BY 2010 $M	Total Flyaway BY 2010 $M	Total Support BY 2010 $M	Total Program BY 2010 $M
2009	56	134.9	--	--	134.9	0.1	135.0
2010	248	325.0	--	70.1	395.1	60.7	455.8
2011	96	177.4	--	71.2	248.6	77.4	326.0
2012	532	512.5	--	42.0	554.5	99.1	653.6
2013	176	290.1	--	18.2	308.3	93.6	401.9
2014	146	279.8	--	18.2	298.0	133.6	431.6
2015	156	263.1	--	27.7	290.8	152.7	443.5
2016	266	462.1	--	8.7	470.8	113.2	584.0
2017	250	361.3	--	8.7	370.0	189.7	559.7
2018	249	386.3	--	8.7	395.0	186.0	581.0
2019	15	80.9	--	8.7	89.6	206.5	296.1
2020	375	521.9	--	8.7	530.6	184.0	714.6
2021	606	779.6	--	8.7	788.3	236.5	1024.8
2022	679	878.9	--	8.7	887.6	339.1	1226.7
2023	592	775.6	--	8.7	784.3	322.3	1106.6
2024	595	783.5	--	8.7	792.2	338.5	1130.7
2025	230	376.7	--	8.6	385.3	356.8	742.1
2026	--	--	--	8.3	8.3	415.7	424.0
Subtotal	**5267**	**7389.6**	**--**	**342.6**	**7732.2**	**3505.5**	**11237.7**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	6/5/2007	9/27/2013
Approved Quantity	408	1030
Reference	Restructure ADM	WIN-T Inc 2 Additional LRIP ADM
Start Year	2009	2009
End Year	2010	2015

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the following:

The WIN-T Inc 2 LRIP program is consistent with Defense Acquisition Executive direction contained in the WIN-T Acquisition Decision Memorandum (ADM) dated June 5, 2007 and corresponding Office of the Secretary of Defense Cost Analysis Improvement Group (CAIG) estimate. The ADM stated “The Army will fund to the Chairman of the Cost Analysis Improvement Group's (CAIG) estimate for Increments 1 and 2; procure Increment 1 equipment to complete fielding to about 199 Army units; and procure Increment 2 equipment for about 37 Army units, based on affordability through FY 2013.” The current WIN-T Inc 2 program only procured 25 Army units through FY 2013**.**

The original LRIP quantity was reported to Congress in the initial September 2007 SAR and again in the December 2007 SAR. This initial LRIP plan consisted of a two-year LRIP phase with quantities totaling 408 communications nodes, or approximately 22-percent, of the total Army Procurement Objective of 1837. These LRIP units were to be procured over two years, with the first year providing units to support Production Qualification Test and Initial Operational Test (IOT), and the second year supporting production ramp up and fielding.

The LRIP start year changed from 2009 to 2010 as a result of program schedule changes. The Milestone C meeting was held on February 3, 2010 after which the program entered into LRIP. The initial LRIP quantities and costs were funded with FY 2009 dollars.

The September 26, 2012 ADM approved an additional LRIP Lot 3 of 538 communications nodes to bring the total LRIP quantities to 938 communications nodes. The current WIN-T Inc 2 LRIP plan consists of a three-year LRIP phase with quantities totaling 932 communications nodes, or approximately 44-percent, of the total APO of 2100. The Product Manager has received approval to exceed the 10% limit. The first year of LRIP provided units to support IOT and the second and third years permit an orderly increase in the production rate for the system sufficient to lead to full-rate production upon the successful completion of operational testing.

The September 27, 2013 ADM approved an additional LRIP Lot 4, excluding 119 Soldier Network Extension configuration item, and approved Lot 5 Training Base articles. An additional 105 communications nodes will be procured upon successful completion of a Full Rate Production (FRP) Decision Review, currently planned for May 2015. This brings the total LRIP quantity to 1,030 communications nodes, approximately 20-percent of the total 5,267 communications nodes required. The fourth and fifth years of LRIP continue production sufficient to lead to FRP. FRP requires a successful Follow-on Operational Test and Evaluation.

Foreign Military Sales

None

Nuclear Costs

None

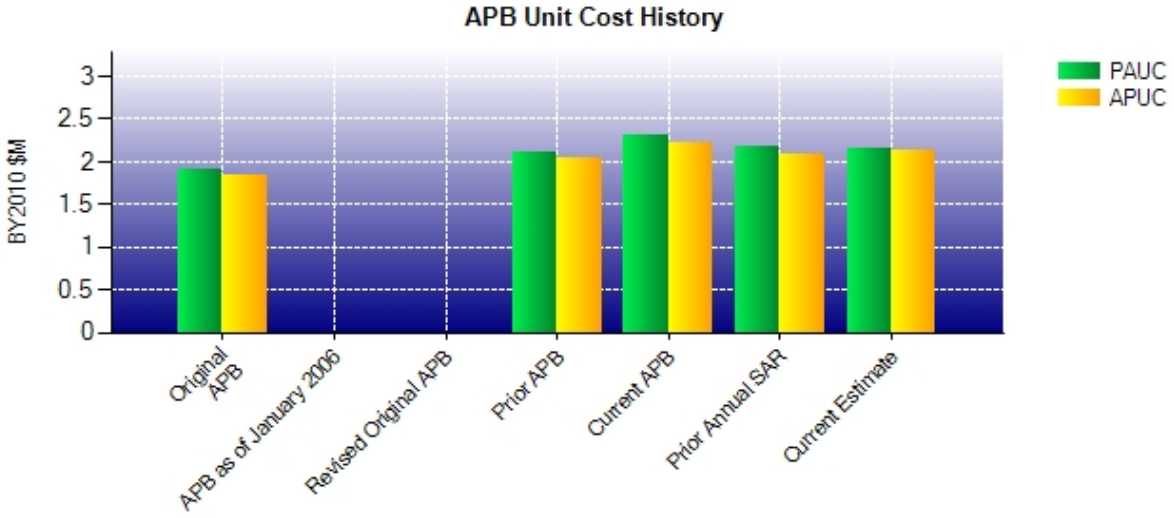
Unit Cost

Unit Cost Report

Unit Cost	BY2010 $M Current UCR Baseline (MAY 2013 APB)	BY2010 $M Current Estimate (DEC 2013 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	4408.9	11510.8	
Quantity	1916	5323	
Unit Cost	2.301	2.162	-6.04
Average Procurement Unit Cost (APUC)			
Cost	4134.3	11237.7	
Quantity	1860	5267	
Unit Cost	2.223	2.134	-4.00

Unit Cost	BY2010 $M Original UCR Baseline (OCT 2007 APB)	BY2010 $M Current Estimate (DEC 2013 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	3617.2	11510.8	
Quantity	1893	5323	
Unit Cost	1.911	2.162	+13.13
Average Procurement Unit Cost (APUC)			
Cost	3384.5	11237.7	
Quantity	1837	5267	
Unit Cost	1.842	2.134	+15.85

Unit Cost History



		BY2010 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	OCT 2007	1.911	1.842	2.064	1.999
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	MAR 2010	2.115	2.047	2.255	2.190
Current APB	MAY 2013	2.301	2.223	2.534	2.460
Prior Annual SAR	DEC 2012	2.167	2.094	2.383	2.314
Current Estimate	DEC 2013	2.162	2.134	2.650	2.626

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial PAUC Dev Est	Changes								PAUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
2.064	-0.055	-0.063	0.016	0.000	0.093	0.000	0.200	0.191	2.255

Current SAR Baseline to Current Estimate (TY $M)

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
2.255	0.024	-0.175	0.011	-0.093	0.006	0.000	0.622	0.395	2.650

Initial SAR Baseline to Current SAR Baseline (TY $M)

Initial APUC Dev Est	Changes								APUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
1.999	-0.055	-0.055	0.017	0.000	0.079	0.000	0.205	0.191	2.190

Current SAR Baseline to Current Estimate (TY $M)

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
2.190	0.024	-0.138	0.011	-0.094	0.004	0.000	0.629	0.436	2.626

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	JUN 2007	N/A	JUN 2007
Milestone C	N/A	APR 2009	N/A	MAR 2010
IOC	N/A	AUG 2011	N/A	AUG 2013
Total Cost (TY $M)	N/A	3907.0	N/A	14107.3
Total Quantity	N/A	1893	N/A	5323
Prog. Acq. Unit Cost (PAUC)	N/A	2.064	N/A	2.650

Cost Variance

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	266.5	4730.4	--	4996.9
Previous Changes				
Economic	+1.8	+166.8	--	+168.6
Quantity	--	-132.4	--	-132.4
Schedule	--	-5.1	--	-5.1
Engineering	--	-176.1	--	-176.1
Estimating	+10.3	-16.9	--	-6.6
Other	--	--	--	--
Support	--	+292.1	--	+292.1
Subtotal	+12.1	+128.4	--	+140.5
Current Changes				
Economic	-0.2	-41.2	--	-41.4
Quantity	--	+6206.3	--	+6206.3
Schedule	--	+64.1	--	+64.1
Engineering	--	-316.6	--	-316.6
Estimating	-1.7	+38.7	--	+37.0
Other	--	--	--	--
Support	--	+3020.5	--	+3020.5
Subtotal	-1.9	+8971.8	--	+8969.9
Total Changes	+10.2	+9100.2	--	+9110.4
CE - Cost Variance	276.7	13830.6	--	14107.3
CE - Cost & Funding	276.7	13830.6	--	14107.3

Summary Base Year 2010 $M				
	RDT&E	**Proc**	**MILCON**	**Total**
SAR Baseline (Prod Est)	264.7	4421.3	--	4686.0
Previous Changes				
Economic	--	--	--	--
Quantity	--	-85.5	--	-85.5
Schedule	--	+3.5	--	+3.5
Engineering	--	-169.8	--	-169.8
Estimating	+9.9	-23.6	--	-13.7
Other	--	--	--	--
Support	--	+250.8	--	+250.8
Subtotal	+9.9	-24.6	--	-14.7
Current Changes				
Economic	--	--	--	--
Quantity	--	+4793.7	--	+4793.7
Schedule	--	--	--	--
Engineering	--	-247.9	--	-247.9
Estimating	-1.5	+34.9	--	+33.4
Other	--	--	--	--
Support	--	+2260.3	--	+2260.3
Subtotal	-1.5	+6841.0	--	+6839.5
Total Changes	+8.4	+6816.4	--	+6824.8
CE - Cost Variance	273.1	11237.7	--	11510.8
CE - Cost & Funding	273.1	11237.7	--	11510.8

Previous Estimate: December 2012

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-0.2
Adjustment for current and prior escalation. (Estimating)	+0.1	+0.1
Decrease due to prior year fact of life Congressional adjustments. (Estimating)	-0.6	-0.6
Decrease due to revised platform integration testing estimates. (Estimating)	-1.0	-1.2
RDT&E Subtotal	-1.5	-1.9

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-41.2
Adjustment for current and prior escalation. (Estimating)	+15.6	+17.0
Adjustment for current and prior escalation. (Support)	+4.3	+4.6
Quantity variance resulting from an increase of 3,167 Nodes from 2,100 to 5,267 due to the procurement of the additional training base assets and the Configuration Steering Board (CSB) direction to transfer procurement of Army assets to WIN-T Inc 2. (Subtotal)	+4793.7	+6206.3
Quantity variance resulting from a increase of 3,167 Nodes from 2,100 to 5,267 due to the procurement of the additional training base assets and the CSB direction to transfer procurement of Army assets to WIN-T Inc 2. (Quantity)	(+4378.8)	(+5706.0)
Additional quantity variance as a result of increasing the quantities and extending the schedule from FY 2018 to FY 2026. (Quantity)	(+414.9)	(+500.3)
Realignment of procurement schedule to meet Force Structure and Army Force Generation (ARFORGEN) changes. (Schedule)	0.0	+64.1
Decrease due to the elimination of the Joint Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance Radio and Highband Radio Frequency Unit- Multiband Terrestrial antenna requirements. (Engineering)	-247.9	-316.6
Increase due to additional Follow-on Operational Test and Evaluation requirements in FY 2015. (Estimating)	+19.3	+21.7
Increase in Fielding, New Equipment Training, and Software Maintenance resulting from increase of 3,167 nodes and the transfer of Contractor Field Service Representatives from Operations & Maintenance, Army to Other Procurement, Army. (Support) (QR)	+2145.3	+2853.0
Increase in Initial Spares quantity resulting from increase of 3,167 Nodes from 2,100 to 5,267. (Support) (QR)	+110.7	+162.9
Procurement Subtotal	+6841.0	+8971.8

(QR) Quantity Related

Contracts

Appropriation: Procurement	
Contract Name	**WIN-T Increment 2 Production**
Contractor	General Dynamics C4 Systems, Incorporated
Contractor Location	Taunton, MA 02780-1036
Contract Number, Type	W15P7T-10-D-C007, FPIF/FFP
Award Date	March 24, 2010
Definitization Date	December 30, 2010

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
299.7	299.7	160	1481.0	1481.0	1030	1481.0	1481.0

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the procurement of Lots 1B, 2, 3 and 4 which equate to an additional 870 nodes LRIP. In addition, production support efforts were added to the contract price.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this FPIF/FFP contract.

Deliveries and Expenditures

Delivered to Date	Plan to Date	Actual to Date	Total Quantity	Percent Delivered
Development	56	56	56	100.00%
Production	212	260	5267	4.94%
Total Program Quantity Delivered	268	316	5323	5.94%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	14107.3	Years Appropriated	8
Expended to Date	2188.3	Percent Years Appropriated	40.00%
Percent Expended	15.51%	Appropriated to Date	2806.4
Total Funding Years	20	Percent Appropriated	19.89%

The above data is current as of 3/4/2014.

Operating and Support Cost

WIN-T Inc 2

Assumptions and Ground Rules

Cost Estimate Reference:

1. O&S costs are based on annual update to the Program Office Estimate as of February 25, 2014.
2. Costs are estimated in accordance with department of the Army Cost Analysis Manual, Deputy Assistant secretary of the Army, US Army Cost and Economic Analysis Center, May 2002.
3. O&S cost factors taken from the Army Operating and Support Management Information System (OSMIS).
4. The figures below are per the Cost Assessment and Program Evaluation O&S Cost Estimating structure.
5. Military Personnel costs are taken from the Army Military Cost System (AMCOS).
6. Mission Pay and Allowance estimates based on the WIN-T manpower estimates included in the WIN-T Inc 2 Cost Analysis Requirements Description dated May 24, 2013.
7. Estimated costs are based on the Operating Tempo approved by the Army's Training and Doctrine Command as well as individual Configuration Item component reliability.

Sustainment Strategy:

1. Costs are based on two level maintenance concept.
2. System life is estimated to be 20-years.
3. Total quantity of the system being procured consists of 5,267 communication nodes.

Antecedent Information:

There is no antecedent program to this system.

Unitized O&S Costs BY2010 $K		
Cost Element	**WIN-T Inc 2 Average Annual Cost per Communications Node**	**N/A (Antecedent) N/A**
Unit-Level Manpower	81.367	0.000
Unit Operations	1.845	0.000
Maintenance	30.948	0.000
Sustaining Support	16.824	0.000
Continuing System Improvements	19.108	0.000
Indirect Support	0.000	0.000
Other	0.000	0.000
Total	150.092	--

Unitized Cost Comments:

O&S costs reflect the total average annual cost for WIN-T Inc 2 communications nodes.

Multiplying the total average annual cost by 20 years and by 5,267 communications nodes will achieve the total costs.

	Total O&S Cost $M			
	Current Production APB Objective/Threshold		Current Estimate	
	WIN-T Inc 2		WIN-T Inc 2	N/A (Antecedent)
Base Year	7918.1	8709.9	**15810.7** [1]	N/A
Then Year	10907.4	N/A	22945.3	N/A

[1] **APB O&S Cost Breach**

Total O&S Costs Comments:

The WIN-T Inc 2 O&S cost increased from $8.6B (BY$ 2010) in the December 2012 SAR to $15.8B (BY$ 2010) in the December 2013 SAR. The primary driver in the difference was an increase of 3,167 nodes due to Configuration Steering Board direction, bringing total program quantity from 2,100 to 5,267 nodes.

O&S Cost Variance		
Category	**Base Year 2010 $M**	**Change Explanation**
Prior SAR Total O&S Estimate December 2012	8,596.6	
Cost Estimating Methodology	-148.2	Accounted for End of Life upgrades in Reparables costs calculation.
Cost Data Update	+476.4	Updated OSMIS and AMCOS values for Data Interchange Free Issue Reparable and Consumable costs and Military Pay, respectively.
Labor Rate	0.0	
Energy Rate	+123.3	Updated Operations and Maintenance, Army Fuel Inflation Rates.
Technical Input	-225.9	Removal of Regional Support Center costs, and Joint Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance/Highband Radio Frequency Unit-Multiband Terrestrial requirements.
Programmatic/Planning Factors	+6,988.5	Increased Quantity by 3167 Nodes and Removed Contractor Field Service Representatives
Other	0.0	
Total Changes	+7,214.1	
Current Estimate	15,810.7	

Disposal Costs:

Demilitarization and disposal costs are valued at $23.7M (BY$ 2010).