



Selected Acquisition Report (SAR)

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



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

As of FY 2020 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Sensitivity Originator	3
Common Acronyms and Abbreviations for MDAP Programs	4
Program Information	6
Responsible Office	6
References	7
Mission and Description	8
Executive Summary	9
Threshold Breaches	11
Schedule	12
Performance	14
Track to Budget	18
Cost and Funding	19
Low Rate Initial Production	28
Foreign Military Sales	29
Nuclear Costs	29
Unit Cost	30
Cost Variance	33
Contracts	36
Deliveries and Expenditures	37
Operating and Support Cost	38

Sensitivity Originator

No originator info Available at this time.

Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
\$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
\$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
\$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)

Program Information

Program Name

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

DoD Component

Army

Responsible Office

COL Gregory Coile
PM Tactical Network
6590 Reconnaissance Street
Aberdeen Proving Ground, MD 21005-1848

gregory.h.coile.mil@mail.mil

Phone: 443-395-7223

Fax: 443-395-7208

DSN Phone: 648-7223

DSN Fax: 648-7208

Date Assigned: July 20, 2015

References

SAR Baseline (Production Estimate)

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

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated June 21, 2015

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 leverages proven Government and commercial technologies to increase integrated tactical networking capability and provide automated network management to optimize planning (to include spectrum use), initialization, monitoring, and troubleshooting. WIN-T Inc 2 employs satellite communication (SATCOM) OTM to extend the network in maneuver Brigade Combat Teams to select Company-level roles. 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 vehicle. WIN-T Inc 2 provides commercial and military band SATCOM to Division, Brigade, and Battalion, while also providing OTM capability and a mobile infrastructure; it provides Beyond Line of Sight SATCOM OTM extended to Battalion and Company. The WIN-T Inc 2 network is self-forming, which means that it automatically creates transmission paths based on terrain and environmental conditions, and is 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 lose 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 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 1 network which enables information sharing between WIN-T Inc 1 and WIN-T Inc 2. Situation Information Transport completes the fielding of WIN-T Inc 2 to active component Infantry and Stryker Brigade Combat Teams.

Executive Summary

Program Highlights Since Last Report

Pursuant to section 2432 of title 10, United States Code, this is the final SAR submission for WIN-T Inc 2, because the program is 90% or more expended.

An Army-directed network strategy review resulted in changes to the program's Basis of Issue. In accordance with the Army Network Modernization Strategy, WIN-T Inc 2 will transition to Sustainment by completing fielding to all Active Army Component 1 Infantry and Stryker Brigade Combat Teams (BCT) by the end of FY 2021. The WIN-T Inc 2 program is adequately funded to execute the Army Network Modernization Strategy and an orderly conclusion to the program. Revision 4 to the approved CPD was approved April 16, 2018. This revision aligns program requirements in accordance with the Army Network Modernization Strategy. The final procurement of WIN-T Inc 2 hardware occurred in FY 2018 in accordance with the Army Network Modernization Strategy.

The Next Generation Point of Presence and Soldier Network Extension (NextGen PoP/SNE) Developmental Test was completed in June 2018. NextGen PoP/SNE is smaller, lighter, and more reliable than its predecessor. It provides simplified integration on all platforms and restores two troop seats in Stryker vehicles. The First Unit Equipped with NextGen PoP/SNE was the 3/25 Infantry BCT in December 2018.

The successful Tactical Communications Node-Lite/Network Operations and Support Center-Lite (TCN-L/NOSC-L) Operational Test was previously reported in the December 2017 SAR. Test results proved effective, suitable, and survivable leading to material release on July 25, 2018 and fielding to 2/101 and 3/25 Infantry BCTs in November 2018 and December 2018, respectively.

At the end of CY 2018, WIN-T Inc 2 was fielded to 18 BCTs, nine Divisions, and the U.S. Army Signal School at Fort Gordon, Georgia. After fielding, two of the 18 BCTs were converted to the Army equipment reset program. The program is on track to complete an orderly transition to Sustainment by the end of FY 2021. When the program transitions to Sustainment at the end of FY 2021, a total of 1,565 WIN-T Inc 2 nodes will be fielded to 24 BCTs and nine Divisions.

The Army certifies that the program's requirements are updated and validated, and funding is adequate to meet cost, schedule, and performance objectives. There is no increased risk from last SAR.

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

History of Significant Developments Since Program Initiation	
History of Significant Developments Since Program Initiation	
Date	Significant Development Description
June 2007	Nunn-McCurdy Certification – Program created and entered acquisition life cycle "post-Milestone B".
March 2009	Limited User Test completed.
March 2010	Milestone C Decision – WIN-T Increment 2 Milestone Decision Review was held February 10, 2010 and final approval received March 9, 2010.
May 2012	Initial Operational Test and Evaluation completed.
September 2012	Defense Acquisition Board directs additional program testing.
May 2013	Follow-On Operational Test and Evaluation completed.
September 2013	Second Defense Acquisition Board directs additional program testing.
May 2014	Program rebaselined to increase procurement quantities to field to the Total Army; final approval received May 30, 2014.
October 2014	Follow-On Operational Test and Evaluation 2 completed.
June 2015	FRP Decision – WIN-T Inc 2 FRP Decision Review was held on May 11, 2015 and final approval received June 3, 2015.
September 2015	ACAT IC Delegation ADM received September 11, 2015 delegating milestone decision authority to the Secretary of the Army.
November 2017	Army Execution Order 027-18 discontinues procurement of WIN-T Inc 2 beginning in FY 2018 and allocates remaining WIN-T Inc 2 systems purchased through FY 2021 in accordance with unit set fielding plans.
June 2018	Completion of NextGen PoP/SNE Developmental Test.
July 2018	TCN-L/NOSC-L material release approved.
November 2018	Fielding of NextGen PoP/SNE begins with 3/25 Infantry BCT.

Threshold Breaches

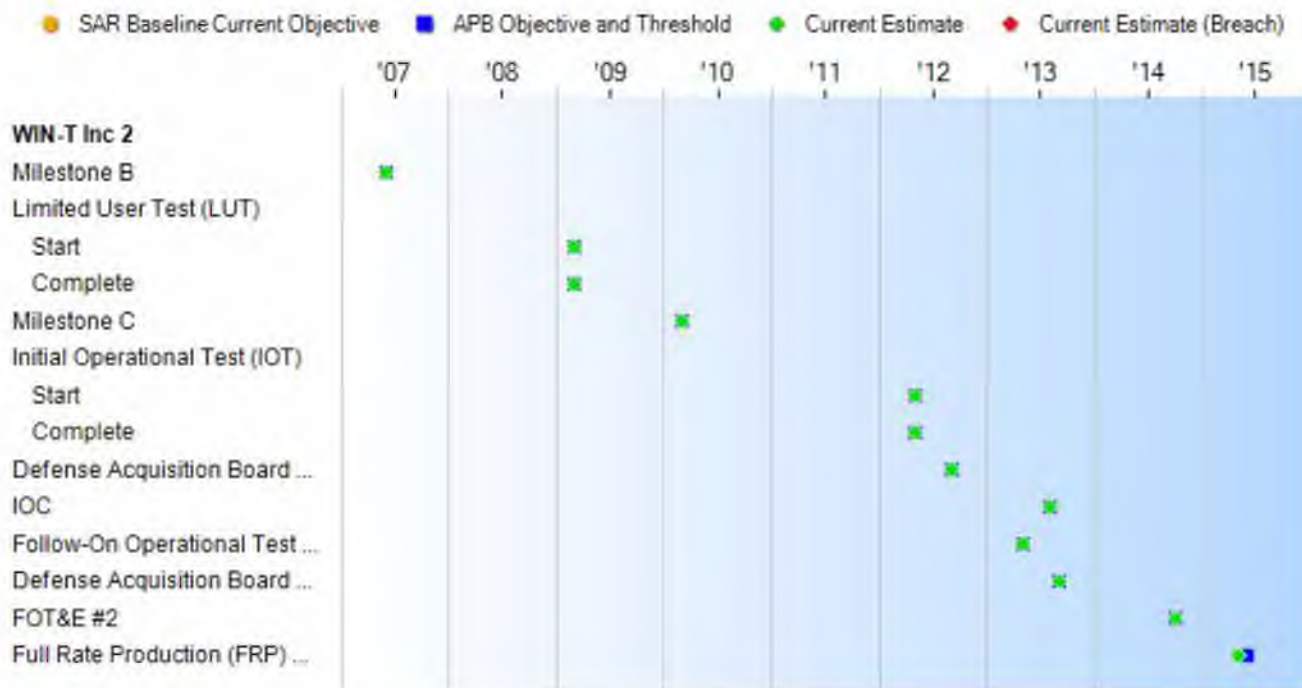
APB Breaches

- 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

Schedule



Schedule Events					
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold	Current Estimate	Current Estimate (Breach)	
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	Aug 2013	Aug 2013	Aug 2013	
Follow-On Operational Test and Evaluation (FOT&E) #1	N/A	May 2013	May 2013	May 2013	
Defense Acquisition Board Review #2	N/A	Sep 2013	Sep 2013	Sep 2013	
FOT&E #2	N/A	Oct 2014	Oct 2014	Oct 2014	
Full Rate Production (FRP) Decision Review	Feb 2012	Jun 2015	Jun 2015	May 2015	

Change Explanations

None

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold	Demonstrated Performance	Current Estimate	
Net Ready				
<p>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, authentication, confidentiality, and non-repudiation, and 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</p>	<p>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, authentication, confidentiality, 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.</p>	<p>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 including availability, integrity, authentication, confidentiality, 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.</p>	<p>Achieved threshold at IOT.</p>	<p>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, authentication, confidentiality, and nonrepudiation, 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.</p>

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 network status and connectivity) its WIN-T equipped units (Bde, Bn, Co) that connect: Objective: Top Secret, Secret, and Unclassified users.	Increment 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.	Increment 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: Threshold: Secret and Unclassified users.	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.
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) and time sensitive information (Category 2) in <1 seconds (92% 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) and time sensitive information (Category 2) in <1 seconds (92% 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) and time sensitive information (Category 2) in <8 seconds (92% 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).
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	N/A	N/A	Achieved threshold at IOT.	Increment 2 unique vehicles require armor

armor kits for protection of passengers inside the vehicle cab from small arms fire, mines, and other anti-vehicle/personnel

kits for protection of passengers inside the vehicle cab from small arms fire, mines, and other anti-vehicle/personnel threats (IAW JROCM 120-05).

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 communications: Objective: Ground vehicles: from 0 to 45 mph with 4 Mbps per link available for user data.

Increment 2 will enable selected warfighters (Bde/Bn maneuver commanders and their CPs) to conduct decisive operations while moving "cross-country" utilizing satellite communications: Objective: Ground vehicles: from 0 to 45 mph with 4 Mbps per link available for user data.

Increment 2 will enable selected warfighters (Bde/Bn maneuver commanders and their CPs) to conduct decisive operations while moving "cross-country" utilizing satellite communications: Threshold: Ground vehicles: from 0 to 25 mph with 256 Kbps per link available for user data.

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 communications: Objective: Ground vehicles: from 0 to 45 mph with 4 Mbps per link available for user data.

Requirements Reference

CPD Revision 1 dated February 14, 2012 as modified by Revision 3 approved October 17, 2014

Change Explanations

None

Notes

JROC Memorandum 069-15 of June 24, 2015 revalidated the program and established thresholds for cost growth and reductions in end item quantities.

Demonstrated Performance as demonstrated at the 2011 PQT-G and the May 2012 IOT 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
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
Kbps - Kilobits Per Second
KIPs - Key Interface Profiles
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
S6 - Battalion or Brigade Communications Cell
TV - Technical View

Track to Budget

RDT&E

Appn	BA	PE	
Army	2040	07	0310349A
	Project		Name
	EE7		WIN-T Inc 2 Initial Networking (Sunk)
	Notes:	This was not a new start in FY 2015. This effort was funded under 0603782A Project 367 through FY 2014.	
Army	2040	04	0603782A
	Project		Name
	355		WIN-T DEM/VAL/Warfighter Information Network Tactical - DEM/VAL (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	02	0310706A
	Line Item		Name
	B27201		Situation Information Transport
Army	2035	04	0310706A
	Line Item		Name
	BS9741		WIN-T INCREMENT 2 Spares (Sunk)
Army	2035	02	0310706A
	Line Item		Name
	BW7115		Increment 2 Initial Networking On The Move (Sunk)

Notes

The parent Line Item for the WIN-T Inc 2 Spares (BS9741) is Initial Spares - C&E (BS9100). The parent Line Item for the WIN-T Inc 2 procurement (BW7115) is WIN-T - Ground Forces Tactical Network (BW7100). BW7100 is shared with other WIN-T family activities.

Situational Information Transport (SIT) (B27201) realigns the (WIN-T Inc 2 funding into the SIT funding line. FY 2019 - FY 2021 Procurement funding supports WIN-T Inc 2 new equipment fielding to two Infantry Brigade Combat Teams (BCT) and four Stryker BCTs, as well as associated initial spares and repair parts.

Acq O&M

Appn	BA	PE
------	----	----

Army 2020 04 0702806A

Subactivity Group	Name
-------------------	------

435 Acquisition and Management Support: Tactical Network (Shared)

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2010 \$M			BY 2010 \$M	TY \$M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	264.7	260.8	286.9	264.6	266.5	262.3	266.7
Procurement	4421.3	9128.5	9800.0	3588.6	4730.4	11089.6	3907.3
Flyaway	--	--	--	2480.1	--	--	2667.0
Recurring	--	--	--	2138.1	--	--	2299.0
Non Recurring	--	--	--	342.0	--	--	368.0
Support	--	--	--	1108.5	--	--	1240.3
Other Support	--	--	--	931.0	--	--	1045.8
Initial Spares	--	--	--	177.5	--	--	194.5
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	6.9	0.0	0.0	8.3
Total	4686.0	9389.3	N/A	3860.1	4996.9	11351.9	4182.3

Current APB Cost Estimate Reference

Army Cost Position (ACP) dated April 28, 2015

Cost Notes

No additional programmatic risks were identified in the latest Program Office Estimate.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E		56	56
Procurement		2160	3674
Total		2216	3730

Quantity Notes

The WIN-T Inc 2 unit of measure is a communications node. There are three unique products designated as a communications node: the Tactical Communications Node, the Point of Presence, and the Soldier Network Extension. Each varies in capability and unit cost. The sum of these three unique items equals the total quantity of communications nodes procured by the program.

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2020 President's Budget / December 2018 SAR (TY\$ M)									
Appropriation	Prior	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
RDT&E	266.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	266.7
Procurement	3734.4	62.7	46.7	63.5	0.0	0.0	0.0	0.0	3907.3
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	2.7	2.8	2.8	0.0	0.0	0.0	0.0	8.3
PB 2020 Total	4001.1	65.4	49.5	66.3	0.0	0.0	0.0	0.0	4182.3
PB 2019 Total	4349.4	65.4	49.7	66.6	0.0	0.0	0.0	0.0	4531.1
Delta	-348.3	0.0	-0.2	-0.3	0.0	0.0	0.0	0.0	-348.8

Quantity Summary										
FY 2020 President's Budget / December 2018 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Development	56	0	0	0	0	0	0	0	0	56
Production	0	1565	0	0	0	0	0	0	0	1565
PB 2020 Total	56	1565	0	0	0	0	0	0	0	1621
PB 2019 Total	56	1567	0	0	0	0	0	0	0	1623
Delta	0	-2	0	0	0	0	0	0	0	-2

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
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	--	--	--	--	--	--	3.1
2016	--	--	--	--	--	--	3.6
2017	--	--	--	--	--	--	4.7
Subtotal	56	--	--	--	--	--	266.7

Annual Funding 2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2010 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
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	--	--	--	--	--	--	3.2
2017	--	--	--	--	--	--	4.1
Subtotal	56	--	--	--	--	--	264.6

Annual Funding								
2035 Procurement Other Procurement, Army								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
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	105.9	693.5	
2013	66	209.9	--	30.1	240.0	176.4	416.4	
2014	124	197.1	--	39.4	236.5	90.4	326.9	
2015	245	260.8	--	17.0	277.8	110.0	387.8	
2016	170	204.9	--	44.8	249.7	188.9	438.6	
2017	28	229.2	--	45.9	275.1	150.4	425.5	
2018	--	--	--	--	--	102.4	102.4	
2019	--	--	--	--	--	62.7	62.7	
2020	--	--	--	--	--	46.7	46.7	
2021	--	--	--	--	--	63.5	63.5	
Subtotal	1565	2299.0	--	368.0	2667.0	1240.3	3907.3	

Annual Funding								
2035 Procurement Other Procurement, Army								
Fiscal Year	Quantity	BY 2010 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
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	--	71.3	248.7	77.4	326.1	
2012	532	512.8	--	42.0	554.8	100.0	654.8	
2013	66	194.3	--	27.9	222.2	163.2	385.4	
2014	124	179.4	--	35.9	215.3	82.2	297.5	
2015	245	234.1	--	15.3	249.4	98.7	348.1	
2016	170	181.4	--	39.7	221.1	167.2	388.3	
2017	28	198.8	--	39.8	238.6	130.5	369.1	
2018	--	--	--	--	--	87.1	87.1	
2019	--	--	--	--	--	52.3	52.3	
2020	--	--	--	--	--	38.2	38.2	
2021	--	--	--	--	--	50.9	50.9	
Subtotal	1565	2138.1	--	342.0	2480.1	1108.5	3588.6	

Annual Funding		
2020	Acq O&M	Operation and Maintenance, Army
Fiscal Year	TY \$M	
	Total Program	
2019		2.7
2020		2.8
2021		2.8
Subtotal		8.3

Annual Funding 2020 Acq O&M Operation and Maintenance, Army	
Fiscal Year	BY 2010 \$M
	Total Program
2019	2.3
2020	2.3
2021	2.3
Subtotal	6.9

Low Rate Initial Production

Item	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 was consistent with DAE direction contained in the June 5, 2007 WIN-T ADM and corresponding OSD Cost Analysis Improvement Group estimate. The ADM states "The Army will fund to the Chairman of the Cost Analysis Improvement Group 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%, of the total Army Procurement Objective (APO) of 1,837. 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 decision was made 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 WIN-T Inc 2 LRIP plan consisted of a three-year LRIP phase with quantities totaling 932 communications nodes, or approximately 44%, of the total APO of 2,100. The PM received approval to exceed the 10% limit. The first year of LRIP provided units to support IOT and the second and third years permitted an orderly increase in the production rate for the system sufficient to lead to FRP upon the successful completion of operational testing.

The September 27, 2013 ADM approved an additional LRIP Lot 4 (excluded 119 Soldier Network Extension Configuration Items) and Lot 5a training base articles. The duration of the LRIP phase was six years, FY 2009 through FY 2015. During this time Lots 1-5a were procured. The total LRIP quantity was 1,030 communications nodes, approximately 28% of the total 3,674 production communications nodes required.

The June 3, 2015 ADM authorized the Army to enter into FRP. Lots 5b and 6, procured in June 2015, were the first FRP lots procured.

Foreign Military Sales

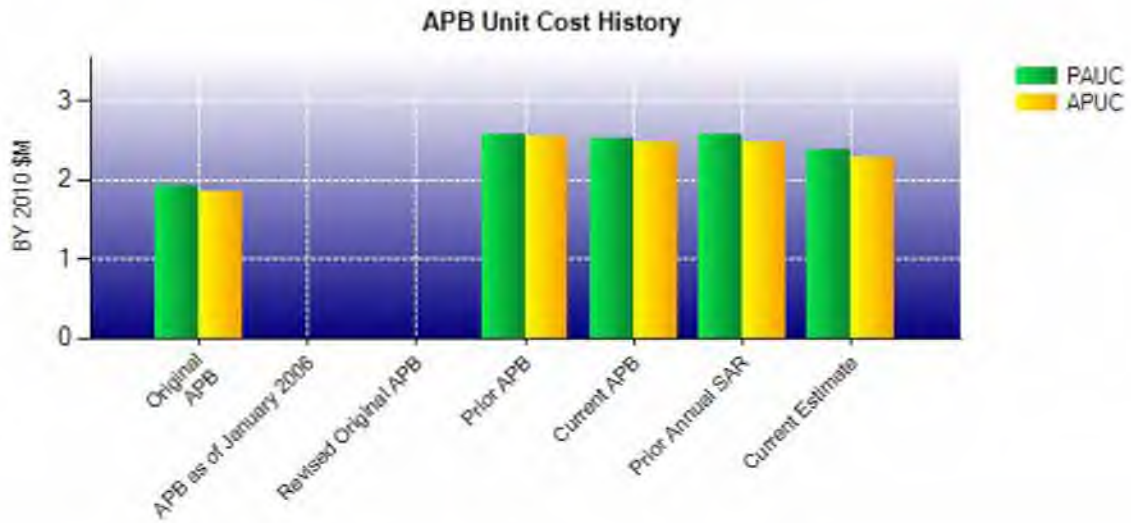
None

Nuclear Costs

None

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2010 \$M	BY 2010 \$M	% Change
	Current UCR Baseline (Jun 2015 APB)	Current Estimate (Dec 2018 SAR)	
Program Acquisition Unit Cost			
Cost	9389.3	3860.1	
Quantity	3730	1621	
Unit Cost	2.517	2.381	-5.40
Average Procurement Unit Cost			
Cost	9128.5	3588.6	
Quantity	3674	1565	
Unit Cost	2.485	2.293	-7.73
Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2010 \$M	BY 2010 \$M	% Change
	Original UCR Baseline (Oct 2007 APB)	Current Estimate (Dec 2018 SAR)	
Program Acquisition Unit Cost			
Cost	3617.2	3860.1	
Quantity	1893	1621	
Unit Cost	1.911	2.381	+24.59
Average Procurement Unit Cost			
Cost	3384.5	3588.6	
Quantity	1837	1565	
Unit Cost	1.842	2.293	+24.48



APB Unit Cost History					
Item	Date	BY 2010 \$M		TY \$M	
		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	Feb 2015	2.576	2.544	3.149	3.125
Current APB	Jun 2015	2.517	2.485	3.043	3.018
Prior Annual SAR	Dec 2017	2.567	2.483	2.792	2.713
Current Estimate	Dec 2018	2.381	2.293	2.580	2.497

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Production Estimate
	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 Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
2.255	-0.093	0.439	0.297	-0.511	0.052	0.000	0.141	0.325	2.580

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Production Estimate
	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 Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
2.190	-0.097	0.432	0.307	-0.502	0.021	0.000	0.146	0.307	2.497

SAR Baseline History					
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	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	4182.3
Total Quantity		N/A	1893	N/A	1621
PAUC		N/A	2.064	N/A	2.580

Cost Variance

Summary TY \$M					
Item	RDT&E	Procurement	MILCON	Acq O&M	Total
SAR Baseline (Production Estimate)	266.5	4730.4	--	--	4996.9
Previous Changes					
Economic	+0.8	-163.6	--	--	-162.8
Quantity	--	-624.8	--	--	-624.8
Schedule	--	+487.0	--	--	+487.0
Engineering	-38.8	-526.8	--	--	-565.6
Estimating	+42.9	+39.9	--	+8.3	+91.1
Other	--	--	--	--	--
Support	--	+309.3	--	--	+309.3
Subtotal	+4.9	-479.0	--	+8.3	-465.8
Current Changes					
Economic	+0.1	+11.3	--	--	+11.4
Quantity	--	-3.4	--	--	-3.4
Schedule	--	-6.3	--	--	-6.3
Engineering	-4.7	-258.4	--	--	-263.1
Estimating	-0.1	-6.3	--	--	-6.4
Other	--	--	--	--	--
Support	--	-81.0	--	--	-81.0
Subtotal	-4.7	-344.1	--	--	-348.8
Total Changes	+0.2	-823.1	--	+8.3	-814.6
CE - Cost Variance	266.7	3907.3	--	8.3	4182.3
CE - Cost & Funding	266.7	3907.3	--	8.3	4182.3

Summary BY 2010 \$M					
Item	RDT&E	Procurement	MILCON	Acq O&M	Total
SAR Baseline (Production Estimate)	264.7	4421.3	--	--	4686.0
Previous Changes					
Economic	--	--	--	--	--
Quantity	--	-330.9	--	--	-330.9
Schedule	--	+3.5	--	--	+3.5
Engineering	-31.7	-445.7	--	--	-477.4
Estimating	+35.7	+61.3	--	+6.9	+103.9
Other	--	--	--	--	--
Support	--	+181.4	--	--	+181.4
Subtotal	+4.0	-530.4	--	+6.9	-519.5
Current Changes					
Economic	--	--	--	--	--
Quantity	--	-2.9	--	--	-2.9
Schedule	--	-5.4	--	--	-5.4
Engineering	-4.0	-221.2	--	--	-225.2
Estimating	-0.1	-5.5	--	--	-5.6
Other	--	--	--	--	--
Support	--	-67.3	--	--	-67.3
Subtotal	-4.1	-302.3	--	--	-306.4
Total Changes	-0.1	-832.7	--	+6.9	-825.9
CE - Cost Variance	264.6	3588.6	--	6.9	3860.1
CE - Cost & Funding	264.6	3588.6	--	6.9	3860.1

Previous Estimate: December 2017

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+0.1
Removal of funding to reflect the de-scope of the program in accordance with the Army Network Modernization Strategy. (Engineering)	-4.0	-4.7
Adjustment for current and prior escalation. (Estimating)	-0.1	-0.1
RDT&E Subtotal	-4.1	-4.7

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+11.3
Total Quantity variance resulting from a decrease of two Nodes from 1,567 to 1,565 due to the Army Network Modernization Strategy. (Subtotal)	-6.8	-8.0
Quantity variance resulting from a decrease of two nodes from 1,567 to 1,565 due to the Army Network Modernization Strategy. (Quantity)	(-2.9)	(-3.4)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-5.4)	(-6.3)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(+2.0)	(+2.4)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-0.5)	(-0.7)
Revised estimate to reflect the de-scope of the program in accordance with the Army Network Modernization Strategy. (Engineering)	-223.2	-260.8
Adjustment for current and prior escalation. (Estimating)	-5.0	-5.6
Adjustment for current and prior escalation. (Support)	-3.8	-4.6
Increase in Other Support resulting from revised Post Deployment Software Support estimate and additional licenses for Lot 9 quantities. (Support)	+10.1	+10.7
Decrease in Initial Spares resulting from the de-scope of the program in accordance with the Army Network Modernization Strategy. (Support)	-73.6	-87.1
Procurement Subtotal	-302.3	-344.1

(QR) Quantity Related

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: WIN-T Increment 2 Production
Contractor: General Dynamics Mission Systems, Inc.
Contractor Location: 400 John Quincy Adams Rd
 Taunton, MA 02780
Contract Number: W15P7T-10-D-C007
Contract Type: Firm Fixed Price (FFP), Fixed Price Incentive(Firm Target) (FPIF)
Award Date: March 24, 2010
Definitization Date: December 30, 2010

Contract Price							
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	2832.7	2832.7	1565	2832.7	2832.7

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the procurement of Lot 1B through Lot 7 which equate to an additional 870 nodes LRIP and Lots 5b, 6, 7 and 8 which equate to 535 nodes FRP. Additionally, production efforts were revised to align with the Army Network Modernization Strategy.

Cost and Schedule Variance Explanations

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

General Contract Variance Explanation

Cost and schedule variances are not reported for this contract, because the cost or incentive portion does not meet the threshold requirements for EVM reporting.

Notes

In FY 2015 General Dynamics merged two organizations to create a new entity called General Dynamics Mission Systems, Inc. Original contracts with PM WIN-T were executed with General Dynamics C4 Systems, Inc. Subsequently, General Dynamics submitted a novation with formal name change that was accepted by the Government and modified into contracts. The current contract and new contracts are executed with General Dynamics Mission Systems, Inc.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	56	56	56	100.00%
Production	1173	1173	1565	74.95%
Total Program Quantity Delivered	1229	1229	1621	75.82%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	4182.3	Years Appropriated	13
Expended to Date	3981.6	Percent Years Appropriated	86.67%
Percent Expended	95.20%	Appropriated to Date	4066.5
Total Funding Years	15	Percent Appropriated	97.23%

The above data is current as of March 11, 2019.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	January 31, 2019
Source of Estimate:	POE
Quantity to Sustain:	1565
Unit of Measure:	Node
Service Life per Unit:	20.00 Years
Fiscal Years in Service:	FY 2012 - FY 2041

1. The WIN-T Inc 2 unit of measure is a communications node. There are three unique products designated as a communications node: the Tactical Communications Node, the Point of Presence, and the Soldier Network Extension. Each varies in capability and unit cost. The sum of these three unique items equals the total quantity of communications nodes procured by the program.
2. Quantity of 1,565 Nodes to sustain does not include 56 RDT&E-funded nodes.
3. Costs are estimated in accordance with Department of the Army Cost Analysis Manual, Deputy Assistant Secretary of the Army for Cost and Economics, May 2002.
4. O&S cost factors taken from the Army Operating and Support Management Information System.
5. Military Personnel costs are taken from the Army Military Cost System.
6. Mission Pay and Allowance estimates based on the WIN-T manpower estimates included in the WIN-T Inc 2 CARD dated November 21, 2014.
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

WIN-T Inc 2 employs the Army's two-level maintenance concept focusing on organic field level operations and a combination of contractor and Government services for sustainment / depot-level operations. All maintenance planning will comply with applicable section 2460 of title 10, U.S. Code Core Depot statutes.

Antecedent Information

No Antecedent. WIN-T Inc 2 provides a different (On-The-Move) capability from WIN-T Inc 1 (at-the-halt) communications and is not descended from the WIN-T Inc 1 system. Both programs are fielded simultaneously to separate users, one does not replace the other.

Cost Element	Annual O&S Costs BY2010 \$K	
	WIN-T Inc 2 Average Annual Cost Per Node	N/A (Antecedent) N/A
Unit-Level Manpower	112.149	0.000
Unit Operations	1.517	0.000
Maintenance	39.169	0.000
Sustaining Support	24.377	0.000
Continuing System Improvements	32.695	0.000
Indirect Support	0.000	0.000
Other	0.000	0.000
Total	209.907	--

Item	Total O&S Cost \$M			
	WIN-T Inc 2			N/A (Antecedent)
	Current Production APB Objective/Threshold		Current Estimate	
Base Year	10613.4	11674.7	6570.1	N/A
Then Year	15198.3	N/A	9121.6	N/A

Equation to Translate Annual Cost to Total Cost

Multiplying the total average annual unitized cost by 20 years and by 1,565 communications nodes will achieve the total costs.

$$\$209.907 \times 20 \times 1,565 = \$6,570,089\text{K or } \$6,570.1\text{M}$$

O&S Cost Variance		
Category	BY 2010 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2017 SAR	6336.3	
Programmatic/Planning Factors	0.0	
Cost Estimating Methodology	-180.9	Decrease due to the revised Technology Refresh methodology.
Cost Data Update	414.7	Increase due to the revised Post Production Software Support estimate (\$275.1) and revised reparable data (\$139.6).
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Other	0.0	
Total Changes	233.8	
Current Estimate	6570.1	

Disposal Estimate Details

Date of Estimate:	January 31, 2019
Source of Estimate:	POE
Disposal/Demilitarization Total Cost (BY 2010 \$M):	7.1

Disposal costs did not change from previous SAR.