



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-421



Airborne & Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS)

As of FY 2016 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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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)

Program Information

Program Name

Airborne & Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS)

DoD Component

Army

Army is the lead Component per Secretary of Defense memorandum dated August 31, 2009. Currently, there are no other Service or Joint participants.

Responsible Office

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Date

Assigned: August 19, 2014

References

[Small Airborne Networking Radio \(SANR\)](#)

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated October 17, 2008

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated May 1, 2014

[Small Airborne Link 16 Terminal \(SALT\)](#)

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated October 17, 2008

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated May 1, 2014

Mission and Description

Airborne & Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS) products are software programmable, multi-band, multi-mode, mobile ad hoc networking radios, providing simultaneous voice, data, and video communications for Army aviation platforms. The radios will operate in networks supporting the Common Operational Picture, situational awareness, and interoperability of Mission Command systems throughout the battlefield. AMF JTRS must ensure the soldier's ability to communicate both horizontally and vertically via voice and data within all mission areas and Combat Operational Environments. AMF JTRS helps close capability gaps by extending data networking to company echelons and below, enabling network services to the platform and connecting Army aviation platforms to Army ground and Joint air network domains. Per MDA direction, the restructured AMF JTRS program will procure radios as Non-Developmental Items (NDI).

AMF JTRS will provide two NDI radios: the Small Airborne Networking Radio (SANR) and the Small Airborne Link 16 Terminal (SALT). The fielding of SANR will follow the deployment of ground network capabilities. The SANR radio will provide Soldier Radio Waveform (SRW), Single Channel Ground and Airborne Radio System and the Wideband Networking Waveform capability to all Army tactical aircraft (reconnaissance, attack, cargo, and utility). SALT will address Joint airborne Link 16 and SRW network requirements by providing Link 16 and SRW capability to Army Apache aircraft.

Executive Summary

General:

This SAR reflects the AMF JTRS subprogram restructure as initially reported in the September 2014 SAR. MDA for Small Airborne Networking Radio (SANR) is retained by the DAE, and MDA for Small Airborne Link 16 Terminal (SALT) was delegated to the Army Acquisition Executive in a May 2, 2014 ADM.

The approved APB identifies an updated cost and schedule section for both programs. Due to the split into subprograms, AMF JTRS will develop two Acquisition Strategies (AS). The SALT AS is on hold pending Army decision on the acquisition strategy. The SANR AS will be forwarded for approval in FY 2016 when SANR funding is restored.

The objective of AMF JTRS is to purchase Non-Developmental Item (NDI) production-ready radios capable of operating network and legacy waveforms for Army aviation platforms. The acquisition approach will leverage prior industry and Government investment in software-defined radios and meet stated user requirements with two separate radios. The SALT radio will run Link 16 and Soldier Radio Waveform (SRW) capability for Army Apache aircraft. The SANR will be a multi-channel radio that will run Single Channel Ground and Airborne Radio System (SINCGARS), SRW, and Wideband Networking Waveform (WNW) to interoperate with ground forces and maintain connectivity for combat operations.

SANR:

The SANR communication capabilities provide two network waveforms (SRW and WNW) and one legacy waveform (Very High Frequency-Frequency Modulation SINCGARS) that will enhance and further enable the ability of the maneuver commander to integrate and synchronize aviation forces with land based operational forces. SANR, employed on all Army tactical aircraft (reconnaissance, attack, cargo, and utility), will enable aviation combat elements (Combat Aviation Brigades, Theater Aviation Brigades, and Special Operations Aviation Regiment) to better utilize the inherent versatility of aviation as a complement to the unique capabilities of the other combat arms. The networks will give commanders enhanced situational awareness and mission command in a package that provides a more responsive means of directing aircraft to match changing maneuver forces situations and missions.

SANR management, planning, pre-solicitation documentation and associated contract efforts begin in FY 2016 in accordance with the SANR schedule. SANR APB schedule events were revised to align with the FY 2016 PB.

SALT:

The SALT radio, through its Link 16 capability, will integrate the AH-64E Apache platforms into the common air picture, improve Apache's effectiveness against ground targets, and enable new missions. SALT's SRW channel will close significant ground-to-air capability gaps by extending situational awareness, improving interoperability of mission command systems, and enhancing sensor-to-shooter coordination through networked data between Army aviation platforms and Army ground forces.

AMF JTRS is in the pre-solicitation stage for the SALT procurement and is developing pre-award documentation in anticipated release of the SALT Request For Proposals. A June 2014 revision to the draft CPD increased threshold requirements (reliability and Link 16 range) resulting in the need for further analysis of industry's ability to meet the requirements. A Request for Information was sent and an Industry Day held to confirm industry's ability to meet increased requirements under an NDI AS. Demonstrations of Range and Reliability requirements were requested in addition to information provided during Industry Day.

Range demonstration was completed in October 2014 to characterize Link 16 range. In November 2014, the Army Aviation community revised the draft CPD, reducing the range and reliability requirements. Even upon reduction in these requirements, interest remains in verifying Industry's ability to meet the requirements. The PM continues to coordinate with stakeholders to conduct a Reliability Verification Testing with SALT representative Link 16 Radios to characterize reliability.

The SALT subprogram will experience threshold schedule breaches in the current APB. The dates in the current APB for the SALT subprogram are no longer applicable. The breaches to the Contract Award, Milestone C Decision, the FRP and IOC are due to impending revisions to the CPD threshold requirements. A Program Deviation Report is being prepared.

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

Threshold Breaches

Small Airborne Networking Radio (SANR)

APB Breaches

Schedule		<input type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
O&S Cost		<input type="checkbox"/>
Unit Cost	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

Nunn-McCurdy Breaches

Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Small Airborne Link 16 Terminal (SALT)

APB Breaches

Schedule		<input checked="" type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
O&S Cost		<input type="checkbox"/>
Unit Cost	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

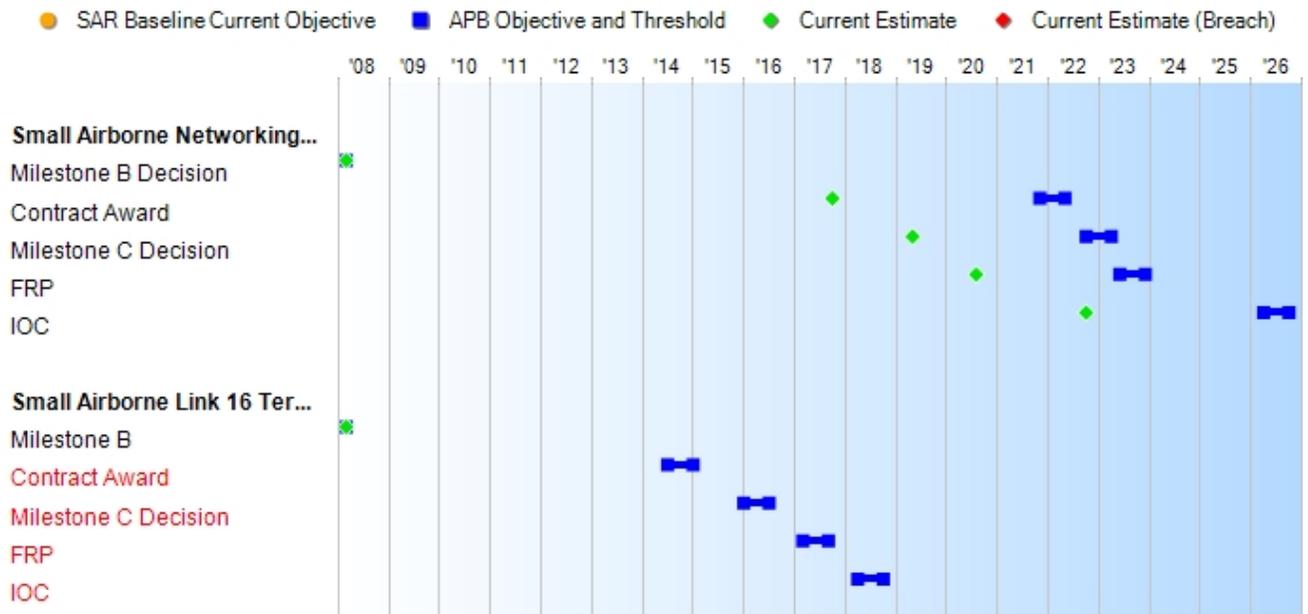
Explanation of Breach

The SALT subprogram will experience threshold schedule breaches in the current APB. The dates in the current APB for the SALT subprogram are no longer applicable. The breaches to the Contract Award, Milestone C Decision, the FRP and IOC are due to impending revisions to the CPD threshold requirements. A Program Deviation Report is being prepared.

Nunn-McCurdy Breaches

Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule



Small Airborne Networking Radio (SANR)

Schedule Events				
Events	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate
Milestone B Decision	Dec 2007	Mar 2008	Mar 2008	Mar 2008
Contract Award	Feb 2008	Nov 2021	May 2022	Oct 2017 (Ch-1)
Milestone C Decision	Nov 2011	Oct 2022	Apr 2023	May 2019 (Ch-1)
FRP	Jul 2014	Jun 2023	Dec 2023	Aug 2020 (Ch-1)
IOC	Aug 2014	Apr 2026	Oct 2026	Oct 2022 (Ch-1)

Change Explanations

(Ch-1) The current estimate for SANR schedule events is revised to align with the FY 2016 PB. Full SANR contract efforts will begin with funding in FY 2016. The current estimate for Contract Award changed from November 2021 to October 2017, Milestone C changed from October 2022 to May 2019, FRP changed from June 2023 to August 2020, and IOC changed from April 2026 to October 2022.

Acronyms and Abbreviations

SANR - Small Airborne Networking Radio

Small Airborne Link 16 Terminal (SALT)

Schedule Events					
Events	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate	
Milestone B	Mar 2008	Mar 2008	Mar 2008	Mar 2008	
Contract Award	Feb 2008	Jul 2014	Jan 2015	TBD ¹	(Ch-1)
Milestone C Decision	Nov 2011	Jan 2016	Jul 2016	TBD ¹	(Ch-1)
FRP	Jul 2014	Mar 2017	Sep 2017	TBD ¹	(Ch-1)
IOC	Aug 2014	Apr 2018	Oct 2018	TBD ¹	(Ch-1)

¹ APB Breach

Change Explanations

(Ch-1) The SALT subprogram will experience threshold schedule breaches from the current APB due to impending revisions to the CPD threshold requirements. The current estimate for Contract Award changed from January 2015 to TBD, Milestone C changed from January 2016 to TBD, FRP changed from March 2017 to TBD, and IOC changed from April 2018 to TBD. A Program Deviation Report is being prepared.

Acronyms and Abbreviations

SALT - Small Airborne Link 16 Terminal

Performance

Small Airborne Networking Radio (SANR)

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
Have an internal growth capability				
Open system architecture IAW DISR; Modular, Scalable, Flexible Form Factors	Open system architecture IAW DISR; Modular, Scalable, Flexible Form Factors	Open system architecture IAW DISR; Modular, Scalable, Flexible Form Factors	TBD	Non Applicable
JTR set modes / capabilities configuration and reconfiguration via software				
By operators in their operational environment	By operators in their operational environment	By operators in their operational environment	TBD	Non Applicable
Multi-channel routing and retransmission				
Objective waveforms that are same in mode (voice, data, or video) and use like data rates and operate at permissible security classification levels	Objective waveforms that are same in mode (voice, data, or video) and use like data rates and operate at permissible security classification levels	KPP waveforms that are same in mode (voice, data, or video) and use like data rates and operate at permissible security classification levels	TBD	Non Applicable
Support waveforms.				
Maritime / Fixed: Same as Threshold. Small Airborne: Threshold plus UHF SATCOM, SINGARS, Havequick II, EPLRS	Maritime / Fixed: Same as Threshold. Small Airborne: Threshold plus UHF SATCOM, SINGARS, Havequick II, EPLRS	Maritime / Fixed: UHF SATCOM, MUOS. Small Airborne: MUOS, SRW, WNW, Link 16	TBD	Non Applicable
To operate on designated number of channels at the same time.				
Small Airborne: 10 channels. Maritime / Fixed (full duplex): 10 channels	Small Airborne: 10 channels. Maritime / Fixed (full duplex): 10 channels	Small Airborne: 2 channels. Maritime / Fixed (full duplex): 4 channels	TBD	Non Applicable
Scaleable networking services				
All domains	All domains	All domains	TBD	Non Applicable
Network extension / coverage				
Across organizational boundaries	Across organizational boundaries	Across organizational boundaries	TBD	Non Applicable
JTR system network interoperability				
Interoperate with Allied / Coalition and commercial networks; satisfy 100% of top-level IER	Interoperate with Allied / Coalition and commercial networks; satisfy 100% of top-level IER	Interoperate with Service and Joint networks; satisfy 100% of critical top-level IERs	TBD	Non Applicable

Sustainment - Operational Availability (Ao)

0.99 (channel)	0.99 (channel)	0.96 (channel)	TBD	Non Applicable
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Requirements Reference

JTRS Operational Requirements Document (ORD) Increment 1 Version 3.2 dated April 9, 2003 / v.3.2.1 errata dated August 28, 2006 and as modified by Joint Requirements Oversight Council Memorandum (JROCM) 063-11 dated April 29, 2011

Change Explanations

None

Notes

The current APB represents the Milestone B Acquisition Strategy. A revised Capability Production Document (CPD) is currently in staffing with the Army Capabilities Integration Center of the Training & Doctrine Command. The Program Office anticipates a subset of the approved KPPs will apply to the approved CPD.

Acronyms and Abbreviations

DISR - Defense Information Standards Registry
 EPLRS - Enhanced Position Location Reporting System
 IAW - In Accordance With
 IER - Information Exchange Requirement
 JTR - Joint Tactical Radio
 MUOS - Mobile User Objective System
 SATCOM - Satellite Communications
 SINCGARS - Single Channel Ground and Airborne Radio System
 SRW - Soldier Radio Waveform
 UHF - Ultra High Frequency
 WNW - Wideband Networking Waveform

Small Airborne Link 16 Terminal (SALT)

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
Have an internal growth capability				
Open system architecture IAW DISR; Modular, Scaleable, Flexible Form Factors	Open system architecture IAW DISR; Modular, Scaleable, Flexible Form Factors	Open system architecture IAW DISR; Modular, Scaleable, Flexible Form Factors	TBD	Non Applicable
JTR set modes / capabilities configuration and reconfiguration via software				
By operators in their operational environment	By operators in their operational environment	By operators in their operational environment	TBD	Non Applicable
Multi-channel routing and retransmission				
Objective waveforms that are in the same mode (voice, data, or video) and use like data rates and operate at permissible security classification levels	Objective waveforms that are in the same mode (voice, data, or video) and use like data rates and operate at permissible security classification levels	KPP waveforms that are in the same mode (voice, data, or video) and use like data rates and operate at permissible security classification levels	TBD	Non Applicable
Support waveforms				
Maritime / Fixed: Same as Threshold. Small Airborne: Threshold plus UHF SATCOM, SINCGARS, Havequick II, EPLRS	Maritime / Fixed: Same as Threshold. Small Airborne: Threshold plus UHF SATCOM, SINCGARS, Havequick II, EPLRS	Maritime / Fixed: UHF SATCOM, MUOS. Small Airborne: MUOS, SRW, WNW, Link 16	TBD	Non Applicable
Operate on designated number of channels at the same time				
Small Airborne: 10 channels. Maritime / Fixed (full duplex): 10 channels	Small Airborne: 10 channels. Maritime / Fixed (full duplex): 10 channels	Small Airborne: 2 channels. Maritime / Fixed (full duplex): 4 channels	TBD	Non Applicable
Scaleable networking services				
All domains	All domains	All domains	TBD	Non Applicable
Network extension / coverage				
Across organizational boundaries	Across organizational boundaries	Across organizational boundaries	TBD	Non Applicable
JTR system network interoperability				
Interoperate with Allied / Coalition and commercial networks; satisfy 100% of top-level IER	Interoperate with Allied / Coalition and commercial networks; satisfy 100% of top-level IER	Interoperate with Service and Joint networks; satisfy 100% of critical top-level IERs	TBD	Non Applicable
Sustainment - Operational availability (Ao)				
0.99 (channel)	0.99 (channel)	0.96 (channel)	TBD	Non Applicable

Requirements Reference

JTRS Operational Requirements Document (ORD) Increment 1 Version 3.2 dated April 9, 2003 / v.3.2.1 errata dated August 28, 2006 and as modified by Joint Requirements Oversight Council Memorandum (JROCM) 063-11 dated April 29, 2011

Change Explanations

None

Notes

The current APB represents the Milestone B Acquisition Strategy. A revised CPD is currently in staffing with the Army Capabilities Integration Center of the Training & Doctrine Command. The Program Office anticipates a subset of the approved KPPs will apply to the approved CPD.

Acronyms and Abbreviations

DISR - Defense Information Standards Registry
EPLRS - Enhanced Position Location and Reporting System
IAW - In Accordance With
IER - Information Exchange Requirements
JTR - Joint Tactical Radio
MUOS - Mobile User Objective System
SATCOM - Satellite Communications
SINCGARS - Single Channel Ground and Airborne Radio System
SRW - Soldier Radio Waveform
UHF - Ultra High Frequency
WNW - Wideband Networking Waveform

Track to Budget

Small Airborne Networking Radio (SANR)

RDT&E

Appn	BA	PE		
Navy	1319	05	0604280N	
	Project		Name	
	3073		AMF JTRS	(Shared) (Sunk)
Army	2040	05	0604280A	
	Project		Name	
	162		Joint Tactical Radio / Network Enterprise Domain	(Shared) (Sunk)
Army	2040	05	0605380A	
	Project		Name	
	EA9		Airborne Maritime Fixed Small Airborne (AMF-SA)	(Sunk)
	EG6		Small Airborne Networking Radio (SANR)	
Air Force	3600	05	0604280F	
	Project		Name	
	655068		Joint Tactical Radio System (JTRS)	(Shared) (Sunk)

Procurement

Appn	BA	PE		
Army	2035	02	0204380A	
	Line Item		Name	
	B90902		AMF JTRS	(Sunk)
	B90904		AMF JTRS	

Small Airborne Link 16 Terminal (SALT)

General Notes

Starting in FY 2014, all AMF JTRS RDT&E funding resides in Army PE 0605380A.

RDT&E

Appn	BA	PE		
Navy	1319	05	0604280N	
	Project		Name	
	3073		AMF JTRS	(Shared) (Sunk)
Army	2040	05	0604280A	
	Project		Name	
	162		Joint Tactical Radio / Network Enterprise Domain	(Shared) (Sunk)

Army	2040	05	0605380A
	Project	Name	
	EA9	Airborne Maritime Fixed Small Airborne (AMF-SA)	

Air Force	3600	05	0604280F
	Project	Name	
	655068	Joint Tactical Radio System (JTRS)	(Shared) (Sunk)

Procurement

Appn	BA	PE
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Army	2035	02	0204380A
	Line Item	Name	
	B90902	AMF JTRS	

Cost and Funding

Cost Summary - Total Program

Total Acquisition Cost - Total Program							
Appropriation	BY 2008 \$M			BY 2008 \$M	TY \$M		
	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Development Estimate	Current APB Development Objective	Current Estimate
RDT&E	1850.7	1407.6	--	1492.3	1941.8	1436.9	1535.2
Procurement	5907.9	1618.6	--	1691.3	7092.5	2397.7	2323.0
Flyaway	--	--	--	1391.3	--	--	1911.3
Recurring	--	--	--	1391.3	--	--	1911.3
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	300.0	--	--	411.7
Other Support	--	--	--	181.8	--	--	248.3
Initial Spares	--	--	--	118.2	--	--	163.4
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	7758.6	3026.2	N/A	3183.6	9034.3	3834.6	3858.2

Cost and Funding

Cost Summary - Small Airborne Networking Radio (SANR)

Total Acquisition Cost - Small Airborne Networking Radio (SANR)							
Appropriation	BY 2008 \$M			BY 2008 \$M	TY \$M		
	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Development Estimate	Current APB Development Objective	Current Estimate
RDT&E	1681.6	1256.2	1381.8	1339.7	1764.2	1279.1	1376.6
Procurement	5459.7	1387.1	1525.8	1441.5	6569.8	2092.1	2002.9
Flyaway	--	--	--	1205.3	--	--	1672.7
Recurring	--	--	--	1205.3	--	--	1672.7
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	236.2	--	--	330.2
Other Support	--	--	--	124.6	--	--	175.3
Initial Spares	--	--	--	111.6	--	--	154.9
MILCON	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
Total	7141.3	2643.3	N/A	2781.2	8334.0	3371.2	3379.5

Current APB Cost Estimate Reference

Program Office Estimate aligned with FY 2015 President's Budget dated March 04, 2014

Confidence Level

Confidence Level of cost estimate for current APB: 50%

Original APB cost estimate was established by OSD decision at 50% confidence level.

Cost Notes

Since the May 2014 APB, the program is being restructured. A new program office estimate is in development.

Costs do not reflect funding for platform integration and installation. Army requirements by platform and year, including integration and installation of AMF JTRS on host platforms, are documented separately.

Total Quantity - Small Airborne Networking Radio (SANR)			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E	204	192	162
Procurement	24920	14060	14060
Total	25124	14252	14222

Quantity Notes

Fielding plan and procurement funding are based on current Army requirements of 7,030 Small Airborne Networking Radios (SANR) (14,060 channels).

RDT&E unit quantities of 162 SANR* channels reflect planned deliveries to the Army for integration onto platforms. These numbers do not include units required for testing.

AMF JTRS PAUC and APUC units of measure are per channel. Quantities are channels with the assumption of two channels per radio.

* RDT&E quantities for SANR have been reduced from 192 to 162 SANR channels. This reduction of quantities is due to the divestiture of the OH-58F Kiowa Warrior and the integration efforts for UH-60V Blackhawk not commencing until FY 2020, after Milestone C. The 30 UH-60V integration assets will be part of production assets and procured using Procurement funds, if required.

Cost Summary - Small Airborne Link 16 Terminal (SALT)

Total Acquisition Cost - Small Airborne Link 16 Terminal (SALT)							
Appropriation	BY 2008 \$M			BY 2008 \$M	TY \$M		
	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Development Estimate	Current APB Development Objective	Current Estimate
RDT&E	169.1	151.4	166.5	152.6	177.6	157.8	158.6
Procurement	448.2	231.5	254.7	249.8	522.7	305.6	320.1
Flyaway	--	--	--	186.0	--	--	238.6
Recurring	--	--	--	186.0	--	--	238.6
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	63.8	--	--	81.5
Other Support	--	--	--	57.2	--	--	73.0
Initial Spares	--	--	--	6.6	--	--	8.5
MILCON	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
Total	617.3	382.9	N/A	402.4	700.3	463.4	478.7

Current APB Cost Estimate Reference

Program Office Estimate aligned with FY 2015 President's Budget dated March 04, 2014

Confidence Level

Confidence Level of cost estimate for current APB: 50%

Original APB cost estimate was established by OSD decision at 50% confidence level.

Cost Notes

Costs do not reflect funding for platform integration and installation. Army requirements by platform and year, including integration and installation of AMF JTRS on host platforms, are documented separately.

Total Quantity - Small Airborne Link 16 Terminal (SALT)			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E	20	20	20
Procurement	1958	1380	1380
Total	1978	1400	1400

Quantity Notes

Fielding plan and procurement funding are based on current Army requirements of 690 Small Airborne Link 16 Terminals (SALT) (1,380 channels).

RDT&E unit quantities of 20 SALT channels reflect planned deliveries to the Army for integration onto platforms. These numbers do not include units required for testing.

AMF JTRS PAUC and APUC units of measure are per channel. Quantities are channels with the assumption of two channels per radio.

Cost and Funding

Funding Summary - Total Program

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	1433.4	6.9	13.0	11.1	36.1	26.1	8.6	0.0	1535.2
Procurement	0.0	0.0	0.0	23.6	30.7	58.9	128.2	2081.6	2323.0
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 2016 Total	1433.4	6.9	13.0	34.7	66.8	85.0	136.8	2081.6	3858.2
PB 2015 Total	1435.5	6.9	27.8	23.7	19.0	20.0	39.9	2382.0	3954.8
Delta	-2.1	0.0	-14.8	11.0	47.8	65.0	96.9	-300.4	-96.6

Cost and Funding

Funding Summary - Small Airborne Networking Radio (SANR)

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	1293.6	0.0	6.2	10.4	35.4	25.4	5.6	0.0	1376.6
Procurement	0.0	0.0	0.0	0.0	0.0	23.1	81.3	1898.5	2002.9
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 2016 Total	1293.6	0.0	6.2	10.4	35.4	48.5	86.9	1898.5	3379.5
PB 2015 Total	--	--	--	--	--	--	--	--	0.0
Delta	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3379.5

Funding Notes

Starting in FY 2014, all AMF JTRS RDT&E funding resides in Army PE 0605380A. The delta between FY 2015 PB and FY 2016 PB is zero because data did not exist for individual sub-programs. The AMF JTRS program split due to restructure occurring in 2014.

Quantity Summary										
FY 2016 President's Budget / December 2014 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Development	162	0	0	0	0	0	0	0	0	162
Production	0	0	0	0	0	0	296	340	13424	14060
PB 2016 Total	162	0	0	0	0	0	296	340	13424	14222
PB 2015 Total	0	0	0	0	0	0	0	0	0	0
Delta	162	0	0	0	0	0	296	340	13424	14222

Funding Summary - Small Airborne Link 16 Terminal (SALT)

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	139.8	6.9	6.8	0.7	0.7	0.7	3.0	0.0	158.6
Procurement	0.0	0.0	0.0	23.6	30.7	35.8	46.9	183.1	320.1
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 2016 Total	139.8	6.9	6.8	24.3	31.4	36.5	49.9	183.1	478.7
PB 2015 Total	--	--	--	--	--	--	--	--	0.0
Delta	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	478.7

Funding Notes

Starting in FY 2014, all AMF JTRS RDT&E funding resides in Army PE 0605380A. The delta between FY 2015 PB and FY 2016 PB is zero because data did not exist for individual sub-programs. The AMF JTRS program split due to restructure occurring in 2014.

Quantity Summary										
FY 2016 President's Budget / December 2014 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Development	20	0	0	0	0	0	0	0	0	20
Production	0	0	0	0	126	160	198	234	662	1380
PB 2016 Total	20	0	0	0	126	160	198	234	662	1400
PB 2015 Total	0	0	0	0	0	0	0	0	0	0
Delta	20	0	0	0	126	160	198	234	662	1400

Cost and Funding

Annual Funding By Appropriation - Small Airborne Networking Radio (SANR)

Annual Funding - Small Airborne Networking Radio (SANR)							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	--	--	--	--	--	--	7.6
2004	--	--	--	--	--	--	39.1
2005	--	--	--	--	--	--	49.3
2006	--	--	--	--	--	--	50.8
2007	--	--	--	--	--	--	51.2
2008	--	--	--	--	--	--	90.7
2009	--	--	--	--	--	--	192.9
2010	--	--	--	--	--	--	278.9
2011	--	--	--	--	--	--	276.1
2012	--	--	--	--	--	--	108.7
2013	--	--	--	--	--	--	8.3
Subtotal	--	--	--	--	--	--	1153.6

Annual Funding - Small Airborne Networking Radio (SANR) 1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2008 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	--	--	--	--	--	--	8.5
2004	--	--	--	--	--	--	42.7
2005	--	--	--	--	--	--	52.5
2006	--	--	--	--	--	--	52.4
2007	--	--	--	--	--	--	51.6
2008	--	--	--	--	--	--	89.7
2009	--	--	--	--	--	--	188.5
2010	--	--	--	--	--	--	268.5
2011	--	--	--	--	--	--	259.5
2012	--	--	--	--	--	--	100.5
2013	--	--	--	--	--	--	7.6
Subtotal	--	--	--	--	--	--	1122.0

Annual Funding - Small Airborne Networking Radio (SANR) 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
2016	--	--	--	--	--	--	6.2
2017	--	--	--	--	--	--	10.4
2018	--	--	--	--	--	--	35.4
2019	--	--	--	--	--	--	25.4
2020	--	--	--	--	--	--	5.6
Subtotal	162	--	--	--	--	--	83.0

Annual Funding - Small Airborne Networking Radio (SANR) 2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2008 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2016	--	--	--	--	--	--	5.4
2017	--	--	--	--	--	--	8.8
2018	--	--	--	--	--	--	29.4
2019	--	--	--	--	--	--	20.7
2020	--	--	--	--	--	--	4.5
Subtotal	162	--	--	--	--	--	68.8

Annual Funding - Small Airborne Networking Radio (SANR)							
3600 RDT&E Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	--	--	--	--	--	--	11.6
2004	--	--	--	--	--	--	25.5
2005	--	--	--	--	--	--	32.8
2006	--	--	--	--	--	--	70.1
Subtotal	--	--	--	--	--	--	140.0

Annual Funding - Small Airborne Networking Radio (SANR) 3600 RDT&E Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	BY 2008 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	--	--	--	--	--	--	13.0
2004	--	--	--	--	--	--	28.0
2005	--	--	--	--	--	--	35.1
2006	--	--	--	--	--	--	72.8
Subtotal	--	--	--	--	--	--	148.9

Annual Funding - Small Airborne Networking Radio (SANR) 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	
2019	296	20.5	--	--	20.5	2.6	23.1	
2020	340	59.0	--	--	59.0	22.3	81.3	
2021	1188	134.3	--	--	134.3	28.9	163.2	
2022	1600	174.3	--	--	174.3	39.1	213.4	
2023	1844	203.4	--	--	203.4	30.1	233.5	
2024	1800	202.7	--	--	202.7	30.5	233.2	
2025	1444	167.5	--	--	167.5	27.2	194.7	
2026	1368	162.3	--	--	162.3	25.9	188.2	
2027	1304	158.2	--	--	158.2	25.7	183.9	
2028	920	116.4	--	--	116.4	21.7	138.1	
2029	832	108.2	--	--	108.2	20.1	128.3	
2030	692	93.3	--	--	93.3	18.7	112.0	
2031	296	46.0	--	--	46.0	14.1	60.1	
2032	136	26.6	--	--	26.6	11.2	37.8	
2033	--	--	--	--	--	12.1	12.1	
Subtotal	14060	1672.7	--	--	1672.7	330.2	2002.9	

Annual Funding - Small Airborne Networking Radio (SANR) 2035 Procurement Other Procurement, Army							
Fiscal Year	Quantity	BY 2008 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2019	296	16.6	--	--	16.6	2.1	18.7
2020	340	46.9	--	--	46.9	17.7	64.6
2021	1188	104.7	--	--	104.7	22.5	127.2
2022	1600	133.2	--	--	133.2	29.8	163.0
2023	1844	152.4	--	--	152.4	22.5	174.9
2024	1800	148.9	--	--	148.9	22.4	171.3
2025	1444	120.6	--	--	120.6	19.6	140.2
2026	1368	114.6	--	--	114.6	18.2	132.8
2027	1304	109.5	--	--	109.5	17.8	127.3
2028	920	79.0	--	--	79.0	14.7	93.7
2029	832	72.0	--	--	72.0	13.3	85.3
2030	692	60.8	--	--	60.8	12.2	73.0
2031	296	29.4	--	--	29.4	9.0	38.4
2032	136	16.7	--	--	16.7	7.0	23.7
2033	--	--	--	--	--	7.4	7.4
Subtotal	14060	1205.3	--	--	1205.3	236.2	1441.5

Annual Funding By Appropriation - Small Airborne Link 16 Terminal (SALT)

Annual Funding - Small Airborne Link 16 Terminal (SALT)							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	--	--	--	--	--	--	0.8
2004	--	--	--	--	--	--	3.9
2005	--	--	--	--	--	--	5.0
2006	--	--	--	--	--	--	5.1
2007	--	--	--	--	--	--	5.1
2008	--	--	--	--	--	--	9.1
2009	--	--	--	--	--	--	19.4
2010	--	--	--	--	--	--	28.0
2011	--	--	--	--	--	--	27.7
2012	--	--	--	--	--	--	10.9
2013	--	--	--	--	--	--	0.8
Subtotal	--	--	--	--	--	--	115.8

Annual Funding - Small Airborne Link 16 Terminal (SALT) 1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2008 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	--	--	--	--	--	--	0.9
2004	--	--	--	--	--	--	4.3
2005	--	--	--	--	--	--	5.3
2006	--	--	--	--	--	--	5.3
2007	--	--	--	--	--	--	5.1
2008	--	--	--	--	--	--	9.0
2009	--	--	--	--	--	--	19.0
2010	--	--	--	--	--	--	27.0
2011	--	--	--	--	--	--	26.0
2012	--	--	--	--	--	--	10.1
2013	--	--	--	--	--	--	0.7
Subtotal	--	--	--	--	--	--	112.7

Annual Funding - Small Airborne Link 16 Terminal (SALT) 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
2014	--	--	--	--	--	--	9.9
2015	--	--	--	--	--	--	6.9
2016	--	--	--	--	--	--	6.8
2017	--	--	--	--	--	--	0.7
2018	--	--	--	--	--	--	0.7
2019	--	--	--	--	--	--	0.7
2020	--	--	--	--	--	--	3.0
Subtotal	20	--	--	--	--	--	28.7

Annual Funding - Small Airborne Link 16 Terminal (SALT) 2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2008 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2014	--	--	--	--	--	--	8.8
2015	--	--	--	--	--	--	6.0
2016	--	--	--	--	--	--	5.9
2017	--	--	--	--	--	--	0.6
2018	--	--	--	--	--	--	0.6
2019	--	--	--	--	--	--	0.6
2020	--	--	--	--	--	--	2.4
Subtotal	20	--	--	--	--	--	24.9

Annual Funding - Small Airborne Link 16 Terminal (SALT)							
3600 RDT&E Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	--	--	--	--	--	--	1.2
2004	--	--	--	--	--	--	2.6
2005	--	--	--	--	--	--	3.3
2006	--	--	--	--	--	--	7.0
Subtotal	--	--	--	--	--	--	14.1

Annual Funding - Small Airborne Link 16 Terminal (SALT)							
3600 RDT&E Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	BY 2008 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	--	--	--	--	--	--	1.3
2004	--	--	--	--	--	--	2.9
2005	--	--	--	--	--	--	3.5
2006	--	--	--	--	--	--	7.3
Subtotal	--	--	--	--	--	--	15.0

Annual Funding - Small Airborne Link 16 Terminal (SALT) 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	
2017	126	14.2	--	--	14.2	9.4	23.6	
2018	160	21.7	--	--	21.7	9.0	30.7	
2019	198	27.0	--	--	27.0	8.8	35.8	
2020	234	36.4	--	--	36.4	10.5	46.9	
2021	170	34.7	--	--	34.7	9.0	43.7	
2022	166	34.6	--	--	34.6	10.2	44.8	
2023	166	35.3	--	--	35.3	7.2	42.5	
2024	160	34.7	--	--	34.7	7.3	42.0	
2025	--	--	--	--	--	10.1	10.1	
Subtotal	1380	238.6	--	--	238.6	81.5	320.1	

Annual Funding - Small Airborne Link 16 Terminal (SALT) 2035 Procurement Other Procurement, Army								
Fiscal Year	Quantity	BY 2008 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2017	126	12.0	--	--	12.0	7.9	19.9	
2018	160	17.9	--	--	17.9	7.5	25.4	
2019	198	21.9	--	--	21.9	7.1	29.0	
2020	234	28.9	--	--	28.9	8.4	37.3	
2021	170	27.0	--	--	27.0	7.1	34.1	
2022	166	26.4	--	--	26.4	7.8	34.2	
2023	166	26.4	--	--	26.4	5.4	31.8	
2024	160	25.5	--	--	25.5	5.3	30.8	
2025	--	--	--	--	--	7.3	7.3	
Subtotal	1380	186.0	--	--	186.0	63.8	249.8	

Low Rate Initial Production

Small Airborne Networking Radio (SANR)

This program has no LRIP at this time. Anticipate requesting LRIP quantity at Milestone C decision.

Small Airborne Link 16 Terminal (SALT)

This program has no LRIP at this time. Anticipate requesting LRIP quantity at Milestone C decision.

Foreign Military Sales

Small Airborne Networking Radio (SANR)

None

Small Airborne Link 16 Terminal (SALT)

None

Nuclear Costs

Small Airborne Networking Radio (SANR)

None

Small Airborne Link 16 Terminal (SALT)

None

Unit Cost

Small Airborne Networking Radio (SANR)

Unit Cost Report

Item	BY 2008 \$M	BY 2008 \$M	% Change
	Current UCR Baseline (May 2014 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	2643.3	2781.2	
Quantity	14252	14222	
Item	0.185	0.196	+5.95
Average Procurement Unit Cost			
Cost	1387.1	1441.5	
Quantity	14060	14060	
Unit Cost	0.099	0.103	+4.04

Item	BY 2008 \$M	BY 2008 \$M	% Change
	Original UCR Baseline (Oct 2008 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	7141.3	2781.2	
Quantity	25124	14222	
Unit Cost	0.284	0.196	-30.99
Average Procurement Unit Cost			
Cost	5459.7	1441.5	
Quantity	24920	14060	
Unit Cost	0.219	0.103	-52.97

In the Original Baseline dated October 2008, AMF JTRS total channel requirement was 27,102 of which 26,878 was Procurement quantity and 224 was RDTE quantity. Splitting the 2008 APB resulted in the following:

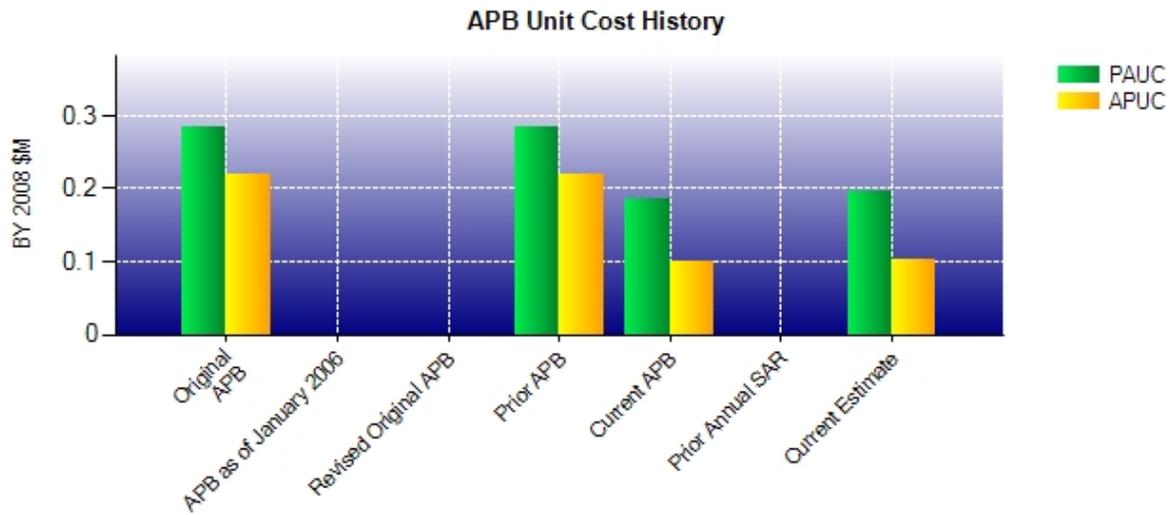
SANR Original Baseline Total Qty of 25,124
 SANR (Procurement) 24,920 channels
 SANR (RDTE) 204 channels

Note: The decrease in PAUC and APUC for the current estimate (when compared to the original unit cost of the October 2008 APB) is due to the reduction in costs associated with the restructured strategy to procure Non-Developmental Item radios for Airborne platforms. The decrease in quantities for SANR (from 25,124 to 14,252 channels) is a result of the elimination of the Air Force and Navy radios.

There was, however, a slight increase to PAUC and APUC for the current estimate (when compared to the current unit cost of May 2014 APB) due to the updated inflation rates. Also an increase to sunk costs in the Navy account attributed to the increase in PAUC as well as the restoration of funding in FY 2016 PB.

Small Airborne Networking Radio (SANR)

Unit Cost History



Item	Date	BY 2008 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Oct 2008	0.284	0.219	0.332	0.264
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	Oct 2008	0.284	0.219	0.332	0.264
Current APB	May 2014	0.185	0.099	0.237	0.149
Prior Annual SAR	Dec 2013	N/A	N/A	N/A	N/A
Current Estimate	Dec 2014	0.196	0.103	0.238	0.142

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.332	-0.004	0.066	0.013	0.001	-0.194	0.000	0.024	-0.094	0.238

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.264	-0.003	0.015	0.023	0.000	-0.181	0.000	0.024	-0.122	0.142

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	Dec 2007	N/A	Mar 2008
Milestone C	N/A	Nov 2011	N/A	May 2019
IOC	N/A	Aug 2014	N/A	Oct 2022
Total Cost (TY \$M)	N/A	8334.0	N/A	3379.5
Total Quantity	N/A	25124	N/A	14222
PAUC	N/A	0.332	N/A	0.238

Small Airborne Link 16 Terminal (SALT)

Unit Cost Report

Item	BY 2008 \$M	BY 2008 \$M	% Change
	Current UCR Baseline (May 2014 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	382.9	402.4	
Quantity	1400	1400	
Item	0.274	0.287	+4.74
Average Procurement Unit Cost			
Cost	231.5	249.8	
Quantity	1380	1380	
Unit Cost	0.168	0.181	+7.74

Item	BY 2008 \$M	BY 2008 \$M	% Change
	Original UCR Baseline (Oct 2008 APB)	Current Estimate (Dec 2014 SAR)	
Program Acquisition Unit Cost			
Cost	617.3	402.4	
Quantity	1978	1400	
Unit Cost	0.312	0.287	-8.01
Average Procurement Unit Cost			
Cost	448.2	249.8	
Quantity	1958	1380	
Unit Cost	0.229	0.181	-20.96

In the Original Baseline dated October 2008, AMF JTRS total channel requirement was 27,102 of which 26,878 was Procurement quantity and 224 was RDTE quantity. Splitting the 2008 APB resulted in the following:

SALT Original Baseline Total Qty of 1,978 channels

SALT (Procurement) 1,958 channels

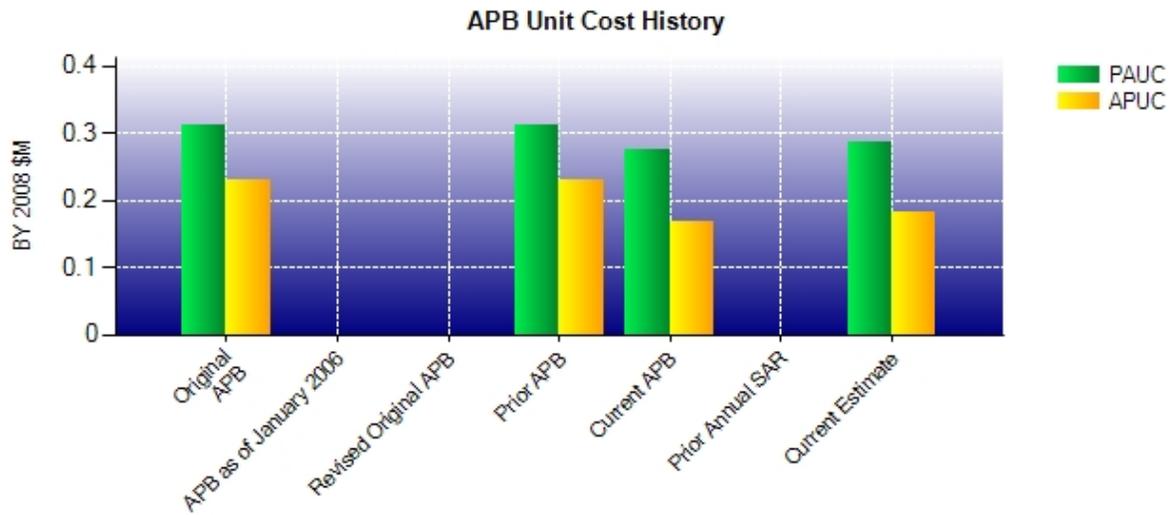
SALT (RDTE) 20 channels

The decrease in PAUC and APUC for the current estimate (when compared to the original unit cost of the October 2008 APB) is due to the reduction in costs associated with the restructured strategy to procure Non-Developmental Item radios for airborne platforms. The decrease in quantities for SALT (from 1,978 to 1,400 channels) is a result of the elimination of the Air Force and Navy radios.

The increase in PAUC and APUC for the current estimate (when compared to the current unit cost of May 2014 APB) is due to the updated inflation rates for the SALT subprogram. Also an increase to sunk costs in the Navy account contributed to the increase in PAUC.

Small Airborne Link 16 Terminal (SALT)

Unit Cost History



Item	Date	BY 2008 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Oct 2008	0.312	0.229	0.354	0.267
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	Oct 2008	0.312	0.229	0.354	0.267
Current APB	May 2014	0.274	0.168	0.331	0.221
Prior Annual SAR	Dec 2013	N/A	N/A	N/A	N/A
Current Estimate	Dec 2014	0.287	0.181	0.342	0.232

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.354	-0.005	-0.046	0.019	0.001	-0.010	0.000	0.029	-0.012	0.342

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.267	-0.003	-0.082	0.029	0.000	-0.009	0.000	0.030	-0.035	0.232

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A		N/A	N/A	N/A
Milestone B		N/A	Mar 2008	Mar 2008
Milestone C		N/A	Nov 2011	TBD
IOC		N/A	Aug 2014	TBD
Total Cost (TY \$M)		N/A	700.3	478.7
Total Quantity		N/A	1978	1400
PAUC		N/A	0.354	0.342

Cost Variance

Small Airborne Networking Radio (SANR)

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	1764.2	6569.8	--	8334.0
Previous Changes				
Economic	-23.4	-7.5	--	-30.9
Quantity	-26.6	-2646.8	--	-2673.4
Schedule	-139.9	+448.3	--	+308.4
Engineering	+12.3	--	--	+12.3
Estimating	-307.5	-2609.6	--	-2917.1
Other	--	--	--	--
Support	--	+337.9	--	+337.9
Subtotal	-485.1	-4477.7	--	-4962.8
Current Changes				
Economic	-0.1	-28.9	--	-29.0
Quantity	-3.3	--	--	-3.3
Schedule	--	-122.2	--	-122.2
Engineering	--	--	--	--
Estimating	+100.9	+59.8	--	+160.7
Other	--	--	--	--
Support	--	+2.1	--	+2.1
Subtotal	+97.5	-89.2	--	+8.3
Total Changes	-387.6	-4566.9	--	-4954.5
CE - Cost Variance	1376.6	2002.9	--	3379.5
CE - Cost & Funding	1376.6	2002.9	--	3379.5

Summary BY 2008 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	1681.6	5459.7	--	7141.3
Previous Changes				
Economic	--	--	--	--
Quantity	-24.7	-2250.6	--	-2275.3
Schedule	-140.4	+23.5	--	-116.9
Engineering	+11.0	--	--	+11.0
Estimating	-270.4	-2068.1	--	-2338.5
Other	--	--	--	--
Support	--	+221.2	--	+221.2
Subtotal	-424.5	-4074.0	--	-4498.5
Current Changes				
Economic	--	--	--	--
Quantity	-2.7	--	--	-2.7
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+85.3	+40.8	--	+126.1
Other	--	--	--	--
Support	--	+15.0	--	+15.0
Subtotal	+82.6	+55.8	--	+138.4
Total Changes	-341.9	-4018.2	--	-4360.1
CE - Cost Variance	1339.7	1441.5	--	2781.2
CE - Cost & Funding	1339.7	1441.5	--	2781.2

Previous Estimate: September 2014

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-0.1
Quantity variance due to a reduction of 30 channels from 192 to 162 reflects the divesture of the OH-58F Kiowa Warrior as well as the integration efforts for UH-60V Blackhawk not commencing until FY 2020. (Quantity)	-2.7	-3.3
Revised estimate due to alignment of integration costs with FY 2016 PB (Army). (Estimating)	+2.7	+3.3
Revised estimate to reflect resumed program efforts that align with FY 2016 PB (Army). (Estimating)	+68.7	+82.9
Adjustment for current and prior escalation. (Estimating)	+0.1	+0.1
Revised estimate to reflect prior year actuals (Navy). (Estimating)	+13.8	+14.6
RDT&E Subtotal	+82.6	+97.5

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-28.9
Acceleration of procurement buy profile from FY 2023 to FY 2016 due to restoration of funding in FY 2016 PB (Army). (Schedule)	0.0	-122.2
Revised estimate due to program fielding alignment with FY 2016 PB (Army). (Estimating)	+40.8	+59.8
Increase in Other Support due to an accelerated fielding schedule (Army). (Support)	+13.6	+11.4
Change in Initial Spares due to adjustments in buy profile and fielding schedule (Army). (Support)	+1.4	-9.3
Procurement Subtotal	+55.8	-89.2

Cost Variance

Small Airborne Link 16 Terminal (SALT)

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	177.6	522.7	--	700.3
Previous Changes				
Economic	-2.3	-0.7	--	-3.0
Quantity	-2.7	-266.3	--	-269.0
Schedule	-14.1	+44.9	--	+30.8
Engineering	+1.2	--	--	+1.2
Estimating	-1.9	-39.3	--	-41.2
Other	--	--	--	--
Support	--	+44.3	--	+44.3
Subtotal	-19.8	-217.1	--	-236.9
Current Changes				
Economic	-0.2	-3.9	--	-4.1
Quantity	--	--	--	--
Schedule	--	-4.5	--	-4.5
Engineering	--	--	--	--
Estimating	+1.0	+26.3	--	+27.3
Other	--	--	--	--
Support	--	-3.4	--	-3.4
Subtotal	+0.8	+14.5	--	+15.3
Total Changes	-19.0	-202.6	--	-221.6
CE - Cost Variance	158.6	320.1	--	478.7
CE - Cost & Funding	158.6	320.1	--	478.7

Summary BY 2008 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	169.1	448.2	--	617.3
Previous Changes				
Economic	--	--	--	--
Quantity	-2.5	-226.4	--	-228.9
Schedule	-14.1	+2.4	--	-11.7
Engineering	+1.1	--	--	+1.1
Estimating	-1.8	-56.0	--	-57.8
Other	--	--	--	--
Support	--	+64.6	--	+64.6
Subtotal	-17.3	-215.4	--	-232.7
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+0.8	+17.8	--	+18.6
Other	--	--	--	--
Support	--	-0.8	--	-0.8
Subtotal	+0.8	+17.0	--	+17.8
Total Changes	-16.5	-198.4	--	-214.9
CE - Cost Variance	152.6	249.8	--	402.4
CE - Cost & Funding	152.6	249.8	--	402.4

Previous Estimate: September 2014

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
Revised estimate to reflect prior year actuals (Navy). (Estimating)	+1.4	+1.5
Revised estimate to reflect adjustments in FY 2016 PB (Army). (Estimating)	-0.7	-0.6
RDT&E Subtotal	+0.8	+0.8

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-3.9
Adjustment of procurement buy profile to end two years earlier in FY 2024 to align with FY 2016 PB (Army). (Schedule)	0.0	-4.5
Revised estimate due to update of Recurring Manufacturing methodology to reflect program fielding alignment with FY 2016 PB (Army). (Estimating)	+17.8	+26.3
Increase in Other Support due to programmatic and fielding schedule aligned with FY 2016 PB (Army). (Support)	+4.9	+4.3
Decrease in Initial Spares due to buy profile aligned with FY 2016 PB (Army). (Support)	-5.7	-7.7
Procurement Subtotal	+17.0	+14.5

Contracts

There are no Contracts data to display.

Deliveries and Expenditures

Small Airborne Networking Radio (SANR)

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	162	0.00%
Production	0	0	14060	0.00%
Total Program Quantity Delivered	0	0	14222	0.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	3379.5	Years Appropriated	13
Expended to Date	1309.7	Percent Years Appropriated	41.94%
Percent Expended	38.75%	Appropriated to Date	1293.6
Total Funding Years	31	Percent Appropriated	38.28%

The above data is current as of February 12, 2015.

Small Airborne Link 16 Terminal (SALT)

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	20	0.00%
Production	0	0	1380	0.00%
Total Program Quantity Delivered	0	0	1400	0.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	478.7	Years Appropriated	13
Expended to Date	121.9	Percent Years Appropriated	56.52%
Percent Expended	25.46%	Appropriated to Date	146.7
Total Funding Years	23	Percent Appropriated	30.65%

The above data is current as of February 12, 2015.

Operating and Support Cost

Small Airborne Networking Radio (SANR)

Cost Estimate Details

Date of Estimate:	February 02, 2015
Source of Estimate:	POE
Quantity to Sustain:	14060
Unit of Measure:	Channel
Service Life per Unit:	20.00 Years
Fiscal Years in Service:	FY 2020 - FY 2052

O&S costs are based on the procurement of 7,030 two-channel radios (7,030 x 2 = 14,060), each with a 20-year estimated service life. RDT&E quantities are not sustained.

Sustainment Strategy

The project is currently in the pre-solicitation for proposal stage. The Program Office will conduct an in-depth assessment of risks to logistics and training as information on the product becomes available. The Program Office will execute a step approach to contracting for a Performance Based Logistics (PBL) solution to be initiated after the FRP decision. Initial procurement of test/integration units is planned to come with a one-year warranty and Interim Contractor Logistics Support at contract award. The Program Office plans to conduct a business case analysis using actual cost, usage, and turn-around times before FRP. This approach will facilitate transition to full PBL implementation with greater understanding of requirements, more effective metrics, and greater cost fidelity. Depot Source of Repair Analysis will also be conducted prior to Milestone C. The training concept is being jointly developed by the Program Executive Office for Command, Control, and Communications - Tactical, Project Manager Tactical Radios, Product Manager AMF JTRS, the Army Training and Doctrine Command Training Directorate and Army Aviation and will include a System Training Plan that will accompany the validated requirements document.

Antecedent Information

No Antecedent. AMF JTRS radios are software programmable, multi-band, multi-mode, mobile ad hoc networking radios, providing simultaneous voice, data, and video communications, and which may be employed in new and innovative ways as compared to any currently fielded legacy radio.

Annual O&S Costs BY2008 \$K		
Cost Element	Small Airborne Networking Radio (SANR) Average Annual Cost Per Channel	No Antecedent (Antecedent)
Unit-Level Manpower	0.305	--
Unit Operations	0.130	--
Maintenance	3.607	--
Sustaining Support	1.620	--
Continuing System Improvements	0.209	--
Indirect Support	0.000	--
Other	--	--
Total	5.871	--

Item	Total O&S Cost \$M			
	Small Airborne Networking Radio (SANR)			No Antecedent (Antecedent)
	Current Development APB Objective/Threshold	Current Estimate		
Base Year	2887.4	3176.1	1651.2	N/A
Then Year	5311.8	N/A	2851.2	N/A

Equation to Translate Annual Cost to Total Cost

14,060 channels x 20 years x \$5.871K = \$1,651,163.9K = \$1,651.2M (BY 2008 \$M)

O&S Cost Variance		
Category	BY 2008 \$M	Change Explanations
Prior SAR Total O&S Estimates - Sep 2014 SAR	2888.2	
Programmatic/Planning Factors	0.0	
Cost Estimating Methodology	-521.8	Refined repair costs estimate; Modified overhead rates
Cost Data Update	0.0	
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	-715.2	Updated tech refresh cycle and hardware sustainment labor; Refined failure model data
Other	0.0	
Total Changes	-1237.0	
Current Estimate	1651.2	

Disposal Estimate Details

Date of Estimate: February 02, 2015
Source of Estimate: POE

Disposal/Demilitarization Total Cost (BY 2008 \$M): Total costs for disposal of all Channel are 1.6

Small Airborne Link 16 Terminal (SALT)

Cost Estimate Details

Date of Estimate:	February 02, 2015
Source of Estimate:	POE
Quantity to Sustain:	1380
Unit of Measure:	Channel
Service Life per Unit:	20.00 Years
Fiscal Years in Service:	FY 2020 - FY 2047

O&S costs are based on the procurement of 690 two-channel radios (690 x 2 = 1380), each with a 20-year estimated service life. RDT&E quantities are not sustained.

Sustainment Strategy

The project is currently in the pre-solicitation for proposal stage. The Program Office will conduct an in-depth assessment of risks to logistics and training as information on the product becomes available. The Program Office will execute a step approach to contracting for a Performance Based Logistics (PBL) solution to be initiated after the FRP decision. Initial procurement of test/integration units is planned to come with a one-year warranty and Interim Contractor Logistics Support at contract award. The Program Office plans to conduct a business case analysis using actual cost, usage, and turn-around times before FRP. This approach will facilitate transition to full PBL implementation with greater understanding of requirements, more effective metrics, and greater cost fidelity. Depot Source of Repair Analysis will also be conducted prior to Milestone C. The training concept is being jointly developed by the Program Executive Office for Command, Control, and Communications - Tactical, Project Manager Tactical Radios, Product Manager AMF JTRS, the Army Training and Doctrine Command Training Directorate and Army Aviation and will include a System Training Plan that will accompany the validated requirements document.

Antecedent Information

No Antecedent. AMF JTRS radios are software programmable, multi-band, multi-mode, mobile ad hoc networking radios, providing simultaneous voice, data, and video communications, and which may be employed in new and innovative ways as compared to any currently fielded legacy radio.

Cost Element	Annual O&S Costs BY2008 \$K	
	Small Airborne Link 16 Terminal (SALT) Average Annual Cost Per Channel	No Antecedent (Antecedent)
Unit-Level Manpower	0.303	--
Unit Operations	0.186	--
Maintenance	3.796	--
Sustaining Support	2.149	--
Continuing System Improvements	1.930	--
Indirect Support	0.000	--
Other	0.000	--
Total	8.364	--

Item	Total O&S Cost \$M			
	Small Airborne Link 16 Terminal (SALT)			No Antecedent (Antecedent)
	Current Development APB Objective/Threshold		Current Estimate	
Base Year	427.9	470.7	230.8	N/A
Then Year	700.6	N/A	389.1	N/A

Equation to Translate Annual Cost to Total Cost

1,380 channels x 20 years x \$8.364K = \$230,846.4K = \$230.8M (BY 2008 \$M)

O&S Cost Variance		
Category	BY 2008 \$M	Change Explanations
Prior SAR Total O&S Estimates - Sep 2014 SAR	428.6	
Programmatic/Planning Factors	0.0	
Cost Estimating Methodology	-96.2	Refined repair costs estimate; Modified overhead rates
Cost Data Update	0.0	
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	-101.6	Updated tech refresh cycle and hardware sustainment labor; Refined failure model data
Other	0.0	
Total Changes	-197.8	
Current Estimate	230.8	

Disposal Estimate Details

Date of Estimate: February 02, 2015
Source of Estimate: POE
Disposal/Demilitarization Total Cost (BY 2008 \$M): Total costs for disposal of all Channel are 0.2