



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-385



Joint Tactical Radio System Handheld, Manpack, and Small Form Fit Radios (JTRS HMS)

As of FY 2017 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

Joint Tactical Radio System Handheld, Manpack, and Small Form Fit Radios (JTRS HMS)

DoD Component

Army

Joint Participants

US Navy; US Marine Corps; US Air Force

Army is the lead Acquisition Executive per memo dated July 11, 2012.

Responsible Office

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References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated October 20, 2011

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated October 20, 2011

Mission and Description

The Handheld, Manpack, and Small Form Fit (HMS) radio program is a materiel solution meeting the requirements for a Software Communications Architecture (SCA) compliant hardware system hosting SCA-compliant Government purpose rights software waveforms (applications). HMS is an ACAT ID program that encompasses specific requirements to support the U.S. Army, Air Force, Navy, Marine Corps and Special Operations Command communication needs.

HMS provides voice and data communications to the tactical edge/most disadvantaged warfighter with an on the move, at the halt, and stationary Line of Sight / Beyond Line of Sight capability for both dismounted personnel and platforms. HMS radios are software reprogrammable, networkable, multi-mode system (of systems) capable of simultaneous voice, data and video communication.

HMS encompasses the Rifleman Radio, Manpack Radio, and Small Form Fit radios. The Rifleman Radio is a secret and below capable radio and ports the Soldier Radio Waveform (SRW). It is the primary squad level communication system. The Manpack Radio is for use in a classified environment and ports the following waveforms: SRW, Single Channel Ground and Airborne Radio System, satellite communication, and Mobile-User Objective System. The Manpack Radio is utilized by the company and below. The embedded Small Form Fit radios may be used for Unmanned Vehicles and other platform applications.

Executive Summary

HMS is structured as a single acquisition program. The program completed the EMD Phase and received Milestone C approval on June 17, 2011 with LRIP configured radios. HMS is currently executing to a May 1, 2014 approved acquisition strategy to procure modified non-developmental items (NDI) through two full and open competition contracts available to all potential industry partners. The first contract will procure NDI Rifleman Radios (RR) for use in a classified environment. The RR ports the Soldier Radio Waveform (SRW) (Army managed waveform). The second contract will procure NDI Manpack Radios (MP) for use in a classified environment. Waveforms to be ported to HMS MP include: SRW, Single Channel Ground and Airborne Radio System (Army managed waveform), Satellite Communications (Army managed waveform), and Mobile-User Objective System (Navy managed waveform).

The RR Full and Open Competition contract was awarded on April 29, 2015 to two vendors, Thales Group and Harris Corporation. Qualification Testing was completed on August 13, 2015. Both vendors met the requirements to proceed to further Customer Testing which will be completed in May 2016. Operational Testing is planned for qualified vendors in 4th Quarter FY 2016.

The MP Full and Open Competition contract Request for Proposal was released to industry on August 3, 2015, proposals were received on October 2, 2015, and the contract is currently in source selection.

As of February 9, 2016, the Government received 19,327 LRIP RR and 5,326 LRIP MP radios as well as 200 FOC RR (100 per vendor) to support competition testing and eventual fielding. In addition, the Government received all 2,052 LRIP SFF-B (v)1 Radios for Nett Warrior. Nett Warrior Radios are not a part of the HMS program and are procured for PEO Soldier; however, they are a part of the RR Army Acquisition Objective.

As of February 2016, the Army continues to evaluate a 2-channel handheld radio to meet the developing needs of the Nett Warrior and the Warfighter community.

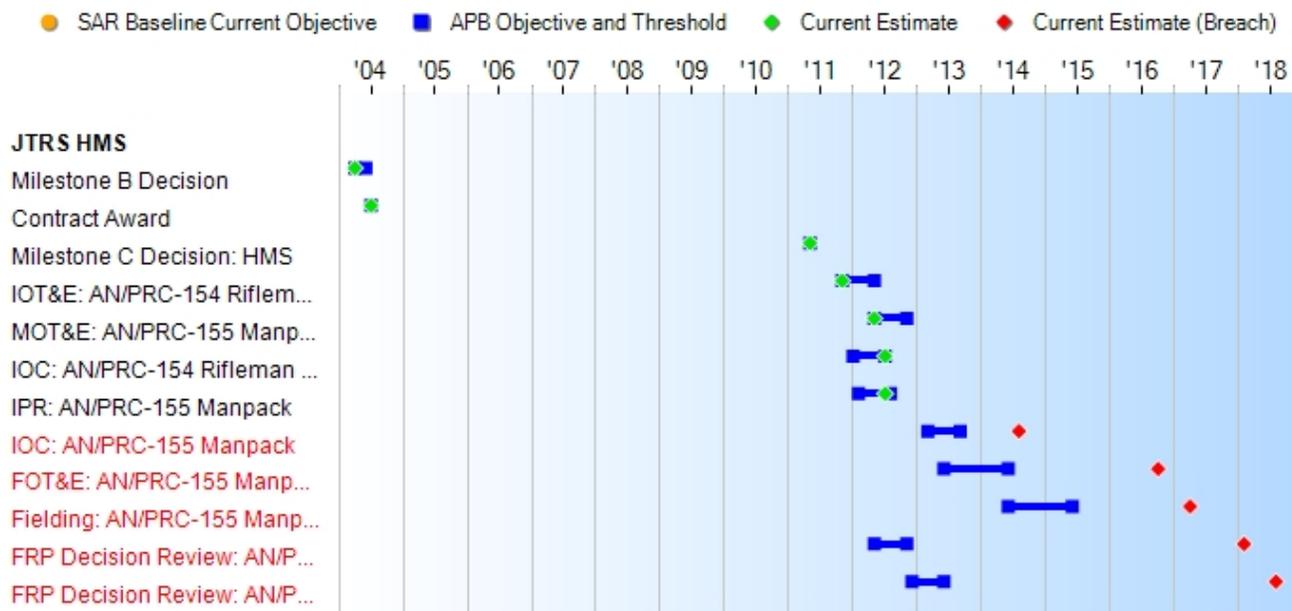
There are no significant software-related issues with this program at this time.

Threshold Breaches

APB Breaches			Explanation of Breach
Schedule		<input checked="" type="checkbox"/>	Schedule breaches were previously reported in the December 2014 SAR. A Joint Requirements Oversight Council memorandum signed August 5, 2015 acknowledges these breaches. As a result, the program office is preparing an APB that reflects the new program schedule.
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

Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Milestone B Decision	Apr 2004	Apr 2004	Jun 2004	Apr 2004
Contract Award	Jul 2004	Jul 2004	Jul 2004	Jul 2004
Milestone C Decision: HMS	May 2011	May 2011	May 2011	May 2011
IOT&E: AN/PRC-154 Rifleman Radio	Nov 2011	Nov 2011	May 2012	Nov 2011
MOT&E: AN/PRC-155 Manpack	May 2012	May 2012	Nov 2012	May 2012
IOC: AN/PRC-154 Rifleman Radio	Jan 2012	Jan 2012	Jul 2012	Jul 2012
IPR: AN/PRC-155 Manpack	Feb 2012	Feb 2012	Aug 2012	Jul 2012
IOC: AN/PRC-155 Manpack	Mar 2013	Mar 2013	Sep 2013	Aug 2014¹
FOT&E: AN/PRC-155 Manpack with MUOS	Jun 2013	Jun 2013	Jun 2014	Oct 2016¹ (Ch-1)
Fielding: AN/PRC-155 Manpack with MUOS	Jun 2014	Jun 2014	Jun 2015	Apr 2017¹ (Ch-1)
FRP Decision Review: AN/PRC-154 Rifleman Radio	May 2012	May 2012	Nov 2012	Feb 2018¹ (Ch-2)
FRP Decision Review: AN/PRC-155 Manpack	Dec 2012	Dec 2012	Jun 2013	Aug 2018¹ (Ch-3)

¹ APB Breach

Change Explanations

(Ch-1) FOT&E: Manpack with MUOS changed from June 2016 to October 2016. Fielding: Manpack with MUOS changed from September 2016 to April 2017. These changes are due to delays in the development of the MUOS system.

(Ch-2) The FRP Decision Review date for the Rifleman Radio changed from March 2017 to February 2018. A Customer Test was added to the testing schedule to provide risk reduction prior to the Operational Test, as well as inform an LRIP delivery order prior to FRP decision.

(Ch-3) The FRP Decision Review for the Manpack Radio changed from September 2017 to August 2018 due to industry timelines for delivering NDI MP radios that meet threshold requirements. Additionally, a Customer Test was added to the testing schedule to provide risk reduction prior to the Operational Test, as well as inform an LRIP delivery order prior to FRP decision.

Notes

HMS procured the AN/PRC-154 and AN/PRC-154A RR, and the AN/PRC-155 MP during the LRIP phase. These nomenclatures will not be applicable to the FRP Decision Review events above. The Full and Open Competition contracts for RR (awarded April 29, 2015) and MP (with award anticipated 3rd Quarter FY 2016) allowed new vendors and/or products to enter, each with unique nomenclature.

Acronyms and Abbreviations

FOT&E - Follow-On Test and Evaluation

IOT&E - Initial Operational Test and Evaluation

IPR - In-Process Review

MOT&E - Multi-Service Operational Test and Evaluation

MP - Manpack

MUOS - Mobile User Objective System

NDI - Non-Developmental Item

RR - Rifleman Radio

SFF - Small Form Fit

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Intra-Squad Communication: AN/PRC-154 Rifleman Radio				
Voice	Voice	Voice	Voice	Voice
Soldier Location: AN/PRC-154 Rifleman Radio				
Automatic PLI	Automatic PLI	Automatic PLI	Automatic PLI	Automatic PLI
Net Ready (NR) Capability: AN/PRC-154 Rifleman Radio				
The capability, system, and/or service must fully support execution of all operational activities and information exchanges identified in DoD Enterprise Architecture and solution architectures based on integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges 2) Compliant with Net -Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG	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, 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	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 nonrepudiation, 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	Threshold demonstrated at NIE 15.1	The capability, system, and/or service must fully support execution of joint critical operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, except tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GESPs necessary to meet all operational

Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GESPs, necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements	in the applicable joint and system integrated architecture views.	consistent data processing specified in the applicable joint and system integrated architecture views.		requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an IATO or ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.
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Sustainment (Operational Availability (Ao)): AN/PRC-154 Rifleman Radio

0.99 (Channel)	0.99 (Channel)	0.96 (Channel)	0.999 (Channel)	0.999 (Channel)
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Voice and Data Communication: AN/PRC-155 Manpack

Must provide networked voice and data exchange to support timely tactical actions while dispersed across the battlefield.	Must provide networked voice and data exchange to support timely tactical actions while dispersed across the battlefield.	Must provide networked voice and data exchange to support timely tactical actions while dispersed across the battlefield.	MP demonstrated networked voice and data exchange (i.e., mission command information) supporting timely tactical actions while dispersed across the battlefield using gateways.	Must provide networked voice and data exchange to support timely tactical actions while dispersed across the battlefield.
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Net Ready (NR) Capability: AN/PRC-155 Manpack

The capability, system, and/or service must fully support execution of all operational activities and information exchanges identified in DoD Enterprise	The capability, system, and/or service must fully support execution of all operational activities and information exchanges identified in DoD Enterprise	The capability, system, and/or service must fully support execution of joint critical operational activities and information exchanges identified in DoD Enterprise	TBD	The capability, system, and/or service must fully support execution of joint critical operational activities and information exchanges identified in DoD Enterprise Architecture and solution architectures based on
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Architecture and solution architectures based on integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges 2) Compliant with Net - Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GESPs, necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements

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integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, except tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GESPs, necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.

	requirements	requirements		
Sustainment (Operational Availability (Ao)): AN/PRC-155 Manpack				
0.99 (Channel)	0.99 (Channel)	0.96 (Channel)	0.86 (Channel)	0.97 (Channel)
Multi-Channel Operations: AN/PRC-155 Manpack				
To enable Warfighters to conduct combat missions across the battlefield, any channel of the MP must have ability to operate any of the waveforms listed as Objective in Table EE-2 of the CPD. The MP must also allow simultaneous operations using waveform combinations listed as Objective identified in Table EE-3.2 of the CPD. In addition the MP must have the ability to route and retransmit threshold waveforms listed as Objective in Table EE-4 of the CPD.	To enable Warfighters to conduct combat missions across the battlefield, any channel of the MP must have ability to operate any of the waveforms listed as Objective in Table EE-2 of the CPD. The MP must also allow simultaneous operations using waveform combinations listed in Table EE-3.2 of the CPD. In addition the MP must have the ability to route and retransmit threshold waveforms listed as Objective in Table EE-4 of the CPD.	To enable Warfighters to conduct combat missions across the battlefield, any channel of the MP must have ability to operate any of the waveforms listed as Thresholds in Table EE-2 of the CPD. The MP must also allow simultaneous operations using waveform combinations listed in Table EE-3 of the CPD. In addition the MP must have the ability to route and retransmit threshold waveforms listed in Table EE-4 of the CPD.	The radio enables Warfighters to conduct combat missions across the battlefield using the SRW, basic modes of SINCGARS and basic modes of UHF SATCOM. The MP has demonstrated simultaneous operations using combinations of these waveforms.	To enable Warfighters to conduct combat missions across the battlefield, any channel of the MP must have ability to operate any of the waveforms listed as Thresholds in Table EE-2 of the CPD. The MP must also allow simultaneous operations using waveform combinations identified in Table EE-3 of the CPD. In addition the MP must have the ability to route and retransmit threshold waveforms listed in Table EE-4 of the CPD.

Requirements Reference

Rifleman Radio CPD dated March 7, 2011 and Manpack CPD dated May 10, 2012

Change Explanations

None

Notes

In order to address soldier and stakeholder concerns with regard to excessive heat and weight of the LRIP MP, HMS coordinated with the U.S. Army Natick Soldier Research, Development and Engineering Center to design an enhanced rucksack that will improve the performance of the MP. The redesigned rucksack provides improved weight distribution and heat dissipation. Additionally, this rucksack is airborne operation certified through testing conducted by the Army Test and Evaluation Command.

Acronyms and Abbreviations

ATO - Approval to Operate
DAA - Designated Approval Authority
DISR - Department of Defense Information Technology Standards Registry
DoDAF - Department of Defense Architecture Framework
GESP - Global Information Grid Enterprise Service Profile
GIG - Global Information Grid
IA - Information Assurance
IATO - Interim Approval to Operate
IEA - Information Environment Architecture
IP - Internet Protocol
IT - Information Technology
KIP - Key Interface Profiles
MP - Manpack
NCOW RM - Net-Centric Operations and Warfare Reference Model
NIE - Network Integration Evaluation
NR - Net Ready
PLI - Position Location Information
SAASM - Selective Availability Anti-Spoofing Module
SATCOM - Satellite Communications
SINGARS - Single Channel Ground and Airborne Radio System
SRW - Soldier Radio Waveform
TV - Technical View
UHF - Ultra High Frequency

Track to Budget

RDT&E

Appn	BA	PE		
Navy	1319	05	0604280N	
	Project	Name		
	3075	Joint Tactical Radio System (JTRS) / HMS JTRS		(Sunk)
Army	2040	05	0604280A	
	Project	Name		
	162	Joint Tactical Radio / Network Enterprise Domain (NED)		(Sunk)
	DZ5	Joint Tactical Radio		
Army	2040	05	0604805A	
	Project	Name		
	615	JTRS - Ground Domain Integration		(Sunk)
	61A	JTRS Cluster 5 Development		(Sunk)
Army	2040	05	0605042A	
	Project	Name		
	FA1	Manpack Radio		
	FA2	Rifleman Radio		

Procurement

Appn	BA	PE		
Navy	1109	04	0206313M	
	Line Item	Name		
	4633	Radio Systems		(Shared)
Navy	1810	02	0204163N	
	Line Item	Name		
	3057	Communication Items Under \$5M		(Shared)
Army	2035	02	0604280A	
	Line Item	Name		
	B90210	JTRS Cluster 5 (Handheld)		(Sunk)
	B90215	JTRS (Manpack)		(Sunk)
Army	2035	02	0605042A	
	Line Item	Name		
	B95006	Handheld Radio		
	B95007	Manpack Radio		
Army	2035	03		
	Line Item	Name		
	R80501	Ground Soldier System		(Sunk)
Air Force	3080	03	0207423F	

Line Item	Name
837100	Tactical C-E Equipment (Shared)

Notes

The parent line for B90210, JTRS Cluster 5 (Handheld), and B90215, JTRS (Manpack), is B90000.

The parent line for B95006, Handheld Radio, and B95007, Manpack Radio, is B95004.

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2011 \$M			BY 2011 \$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	1254.7	1254.7	1380.2	1313.1	1238.5	1238.5	1326.1
Procurement	6987.9	6987.9	7686.7	7442.5	7962.5	7962.5	9580.9
Flyaway	--	--	--	5406.0	--	--	7015.2
Recurring	--	--	--	5242.9	--	--	6832.6
Non Recurring	--	--	--	163.1	--	--	182.6
Support	--	--	--	2036.5	--	--	2565.7
Other Support	--	--	--	1834.1	--	--	2301.9
Initial Spares	--	--	--	202.4	--	--	263.8
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	8242.6	8242.6	N/A	8755.6	9201.0	9201.0	10907.0

Confidence Level

Confidence Level of cost estimate for current APB: 50%

The ICE to support JTRS HMS Milestone C decision, like all lifecycle cost estimates previously performed by the CAPE office, is built upon a product-oriented work breakdown structure, based on historical actual cost information to the maximum extent possible, and, most importantly, based on conservative assumptions that are consistent with actual demonstrated contractor and government performance for a series of acquisition programs in which the Department has been successful.

It is difficult to calculate mathematically the precise confidence levels associated with life-cycle cost estimates prepared for MDAPs. Based on the rigor in methods used in building estimates, the strong adherence to the collection and use of historical cost information, and the review of applied assumptions, we project that it is about equally likely that the estimate will prove too low or too high for execution of the program described.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	582	582	833
Procurement	270369	270369	270369
Total	270951	270951	271202

Quantity Notes

Unit of measure is an HMS radio, which includes multiple variants (Rifleman Radio, Manpack, or various Small Form Fit).

Rifleman Radio (Army) - 193,279:

Dismounted - 170,735

Mounted - 22,544

Manpack (Army) 65,622:

Dismounted - 23,358

Single Vehicle Mounted - 24,580

Dual Vehicle Mounted - 17,684

Small Form Fit-B - 950

Small Form Fit-D - 3,076

Manpack (Other Services): 7,442:

Dismounted - 3,357

Single Vehicle Mounted - 4,085

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2017 President's Budget / December 2015 SAR (TY\$ M)									
Appropriation	Prior	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
RDT&E	1140.5	4.5	18.8	5.4	7.0	9.6	21.5	118.8	1326.1
Procurement	965.2	54.6	273.7	404.9	413.8	415.2	435.8	6617.7	9580.9
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 2017 Total	2105.7	59.1	292.5	410.3	420.8	424.8	457.3	6736.5	10907.0
PB 2016 Total	2126.0	74.6	297.1	475.0	480.7	490.1	506.7	6036.5	10486.7
Delta	-20.3	-15.5	-4.6	-64.7	-59.9	-65.3	-49.4	700.0	420.3

Quantity Summary										
FY 2017 President's Budget / December 2015 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Development	833	0	0	0	0	0	0	0	0	833
Production	0	26905	0	5656	8367	8480	8596	8357	204008	270369
PB 2017 Total	833	26905	0	5656	8367	8480	8596	8357	204008	271202
PB 2016 Total	833	26709	540	8134	12021	12336	13142	15555	181932	271202
Delta	0	196	-540	-2478	-3654	-3856	-4546	-7198	22076	0

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
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
2007	--	--	--	--	--	--	132.9
2008	--	--	--	--	--	--	150.6
2009	--	--	--	--	--	--	127.1
2010	--	--	--	--	--	--	178.3
2011	--	--	--	--	--	--	66.1
2012	--	--	--	--	--	--	117.2
2013	--	--	--	--	--	--	83.5
Subtotal	271	--	--	--	--	--	855.7

Annual Funding							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2011 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2007	--	--	--	--	--	--	139.7
2008	--	--	--	--	--	--	155.5
2009	--	--	--	--	--	--	129.6
2010	--	--	--	--	--	--	179.1
2011	--	--	--	--	--	--	64.8
2012	--	--	--	--	--	--	113.1
2013	--	--	--	--	--	--	79.7
Subtotal	271	--	--	--	--	--	861.5

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
2004	--	--	--	--	--	--	21.9
2005	--	--	--	--	--	--	96.1
2006	--	--	--	--	--	--	124.6
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	0.8
2012	--	--	--	--	--	--	0.1
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	31.8
2015	--	--	--	--	--	--	9.5
2016	--	--	--	--	--	--	4.5
2017	--	--	--	--	--	--	18.8
2018	--	--	--	--	--	--	5.4
2019	--	--	--	--	--	--	7.0
2020	--	--	--	--	--	--	9.6
2021	--	--	--	--	--	--	21.5
2022	--	--	--	--	--	--	22.3
2023	--	--	--	--	--	--	23.9
2024	--	--	--	--	--	--	3.6
2025	--	--	--	--	--	--	10.3
2026	--	--	--	--	--	--	16.1
2027	--	--	--	--	--	--	9.7
2028	--	--	--	--	--	--	25.4
2029	--	--	--	--	--	--	2.3
2030	--	--	--	--	--	--	2.4
2031	--	--	--	--	--	--	1.4
2032	--	--	--	--	--	--	1.4
Subtotal	562	--	--	--	--	--	470.4

Annual Funding							
2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2011 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	--	--	--	24.9
2005	--	--	--	--	--	--	106.2
2006	--	--	--	--	--	--	133.9
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	0.8
2012	--	--	--	--	--	--	0.1
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	29.7
2015	--	--	--	--	--	--	8.7
2016	--	--	--	--	--	--	4.1
2017	--	--	--	--	--	--	16.8
2018	--	--	--	--	--	--	4.7
2019	--	--	--	--	--	--	6.0
2020	--	--	--	--	--	--	8.1
2021	--	--	--	--	--	--	17.7
2022	--	--	--	--	--	--	18.0
2023	--	--	--	--	--	--	18.9
2024	--	--	--	--	--	--	2.8
2025	--	--	--	--	--	--	7.8
2026	--	--	--	--	--	--	12.0
2027	--	--	--	--	--	--	7.1
2028	--	--	--	--	--	--	18.2
2029	--	--	--	--	--	--	1.6
2030	--	--	--	--	--	--	1.7
2031	--	--	--	--	--	--	0.9
2032	--	--	--	--	--	--	0.9
Subtotal	562	--	--	--	--	--	451.6

Annual Funding								
1109 Procurement Procurement, Marine Corps								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2023	245	16.2	--	--	16.2	2.4	18.6	
2024	239	15.8	--	--	15.8	2.3	18.1	
2025	239	15.9	--	--	15.9	2.3	18.2	
2026	239	16.0	--	--	16.0	2.3	18.3	
2027	239	16.1	--	--	16.1	2.3	18.4	
2028	239	16.2	--	--	16.2	2.3	18.5	
2029	239	16.4	--	--	16.4	2.4	18.8	
2030	238	16.5	--	--	16.5	2.4	18.9	
2031	238	16.7	--	--	16.7	2.4	19.1	
2032	238	16.9	--	--	16.9	2.4	19.3	
Subtotal	2393	162.7	--	--	162.7	23.5	186.2	

Annual Funding 1109 Procurement Procurement, Marine Corps							
Fiscal Year	Quantity	BY 2011 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2023	245	12.8	--	--	12.8	1.9	14.7
2024	239	12.2	--	--	12.2	1.8	14.0
2025	239	12.1	--	--	12.1	1.7	13.8
2026	239	11.9	--	--	11.9	1.7	13.6
2027	239	11.7	--	--	11.7	1.7	13.4
2028	239	11.6	--	--	11.6	1.6	13.2
2029	239	11.5	--	--	11.5	1.7	13.2
2030	238	11.3	--	--	11.3	1.7	13.0
2031	238	11.2	--	--	11.2	1.7	12.9
2032	238	11.2	--	--	11.2	1.5	12.7
Subtotal	2393	117.5	--	--	117.5	17.0	134.5

Annual Funding								
1810 Procurement Other Procurement, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2012	50	3.4	--	--	3.4	--	3.4	
2013	--	--	--	--	--	--	--	
2014	--	--	--	--	--	--	--	
2015	--	--	--	--	--	--	--	
2016	--	--	--	--	--	--	--	
2017	--	--	--	--	--	--	--	
2018	--	--	--	--	--	--	--	
2019	--	--	--	--	--	--	--	
2020	--	--	--	--	--	--	--	
2021	--	--	--	--	--	--	--	
2022	--	--	--	--	--	--	--	
2023	20	1.3	--	--	1.3	0.2	1.5	
2024	20	1.3	--	--	1.3	0.2	1.5	
2025	20	1.3	--	--	1.3	0.2	1.5	
2026	20	1.3	--	--	1.3	0.2	1.5	
2027	20	1.4	--	--	1.4	0.2	1.6	
2028	20	1.4	--	--	1.4	0.3	1.7	
2029	20	1.4	--	--	1.4	0.3	1.7	
2030	20	1.4	--	--	1.4	0.3	1.7	
2031	20	1.4	--	--	1.4	0.3	1.7	
2032	20	1.4	--	--	1.4	0.3	1.7	
Subtotal	250	17.0	--	--	17.0	2.5	19.5	

Annual Funding 1810 Procurement Other Procurement, Navy								
Fiscal Year	Quantity	BY 2011 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2012	50	3.3	--	--	3.3	--	3.3	
2013	--	--	--	--	--	--	--	
2014	--	--	--	--	--	--	--	
2015	--	--	--	--	--	--	--	
2016	--	--	--	--	--	--	--	
2017	--	--	--	--	--	--	--	
2018	--	--	--	--	--	--	--	
2019	--	--	--	--	--	--	--	
2020	--	--	--	--	--	--	--	
2021	--	--	--	--	--	--	--	
2022	--	--	--	--	--	--	--	
2023	20	1.0	--	--	1.0	0.2	1.2	
2024	20	1.0	--	--	1.0	0.2	1.2	
2025	20	1.0	--	--	1.0	0.1	1.1	
2026	20	1.0	--	--	1.0	0.1	1.1	
2027	20	1.0	--	--	1.0	0.2	1.2	
2028	20	1.0	--	--	1.0	0.2	1.2	
2029	20	1.0	--	--	1.0	0.2	1.2	
2030	20	1.0	--	--	1.0	0.2	1.2	
2031	20	0.9	--	--	0.9	0.2	1.1	
2032	20	0.9	--	--	0.9	0.2	1.1	
Subtotal	250	13.1	--	--	13.1	1.8	14.9	

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
2011	5297	33.3	--	6.9	40.2	0.1	40.3
2012	19858	357.6	--	6.0	363.6	85.4	449.0
2013	1500	144.0	--	0.2	144.2	60.6	204.8
2014	--	--	--	47.7	47.7	199.3	247.0
2015	200	1.4	--	--	1.4	19.3	20.7
2016	--	--	--	2.0	2.0	52.6	54.6
2017	5656	142.7	--	59.1	201.8	71.9	273.7
2018	8367	260.8	--	33.4	294.2	110.7	404.9
2019	8480	267.1	--	11.0	278.1	135.7	413.8
2020	8596	269.7	--	6.3	276.0	139.2	415.2
2021	8357	285.9	--	4.9	290.8	145.0	435.8
2022	8410	279.2	--	5.1	284.3	153.8	438.1
2023	19201	425.5	--	--	425.5	146.4	571.9
2024	19201	425.9	--	--	425.9	155.5	581.4
2025	18726	406.4	--	--	406.4	154.8	561.2
2026	18726	409.5	--	--	409.5	148.4	557.9
2027	18726	413.2	--	--	413.2	139.3	552.5
2028	18726	417.5	--	--	417.5	115.9	533.4
2029	18724	422.3	--	--	422.3	112.1	534.4
2030	18724	427.4	--	--	427.4	112.7	540.1
2031	18724	432.9	--	--	432.9	114.1	547.0
2032	18728	438.7	--	--	438.7	113.4	552.1
Subtotal	262927	6261.0	--	182.6	6443.6	2486.2	8929.8

Annual Funding 2035 Procurement Other Procurement, Army							
Fiscal Year	Quantity	BY 2011 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2011	5297	32.6	--	6.7	39.3	0.1	39.4
2012	19858	344.4	--	5.8	350.2	82.2	432.4
2013	1500	136.0	--	0.2	136.2	57.2	193.4
2014	--	--	--	44.3	44.3	185.1	229.4
2015	200	1.3	--	--	1.3	17.7	19.0
2016	--	--	--	1.8	1.8	47.6	49.4
2017	5656	126.6	--	52.4	179.0	63.8	242.8
2018	8367	226.9	--	29.1	256.0	96.2	352.2
2019	8480	227.8	--	9.4	237.2	115.7	352.9
2020	8596	225.5	--	5.3	230.8	116.4	347.2
2021	8357	234.4	--	4.0	238.4	118.8	357.2
2022	8410	224.4	--	4.1	228.5	123.6	352.1
2023	19201	335.3	--	--	335.3	115.3	450.6
2024	19201	329.0	--	--	329.0	120.1	449.1
2025	18726	307.8	--	--	307.8	117.2	425.0
2026	18726	304.0	--	--	304.0	110.2	414.2
2027	18726	300.8	--	--	300.8	101.4	402.2
2028	18726	297.9	--	--	297.9	82.8	380.7
2029	18724	295.5	--	--	295.5	78.4	373.9
2030	18724	293.2	--	--	293.2	77.3	370.5
2031	18724	291.1	--	--	291.1	76.7	367.8
2032	18728	289.2	--	--	289.2	74.8	364.0
Subtotal	262927	4823.7	--	163.1	4986.8	1978.6	6965.4

Annual Funding 3080 Procurement Other Procurement, 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	
2023	481	37.8	--	--	37.8	5.1	42.9	
2024	481	37.9	--	--	37.9	5.1	43.0	
2025	480	38.1	--	--	38.1	5.2	43.3	
2026	480	38.5	--	--	38.5	5.2	43.7	
2027	480	38.8	--	--	38.8	5.3	44.1	
2028	480	39.2	--	--	39.2	5.4	44.6	
2029	480	39.7	--	--	39.7	5.5	45.2	
2030	480	40.2	--	--	40.2	5.5	45.7	
2031	479	40.6	--	--	40.6	5.6	46.2	
2032	478	41.1	--	--	41.1	5.6	46.7	
Subtotal	4799	391.9	--	--	391.9	53.5	445.4	

Annual Funding								
3080 Procurement Other Procurement, Air Force								
Fiscal Year	Quantity	BY 2011 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2023	481	30.4	--	--	30.4	4.1	34.5	
2024	481	29.9	--	--	29.9	4.0	33.9	
2025	480	29.5	--	--	29.5	4.0	33.5	
2026	480	29.2	--	--	29.2	3.9	33.1	
2027	480	28.8	--	--	28.8	4.0	32.8	
2028	480	28.6	--	--	28.6	3.9	32.5	
2029	480	28.4	--	--	28.4	3.9	32.3	
2030	480	28.2	--	--	28.2	3.8	32.0	
2031	479	27.9	--	--	27.9	3.8	31.7	
2032	478	27.7	--	--	27.7	3.7	31.4	
Subtotal	4799	288.6	--	--	288.6	39.1	327.7	

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	6/17/2011	12/12/2013
Approved Quantity	6350	26905
Reference	Milestone C ADM	LRIP ADM
Start Year	2011	2011
End Year	2012	2015

The Milestone C ADM signed on June 17, 2011 approved entry into Production and Deployment and authorized the Army to contract for an initial LRIP procurement of 6,250 Rifleman Radios (RR) (AN/PRC-154) and 100 Manpack (MP) radios (AN/PRC-155). The ADM directed the Services to fund to the Independent Cost Estimate position. A follow-on ADM signed July 11, 2012 approved the procurement of an additional LRIP of 13,077 RR. An October 11, 2012 ADM authorized an additional LRIP procurement of up to 3,726 MP. A December 12, 2013 ADM authorized LRIP procurement of an additional 1,500 MP. In accordance with the program's May 1, 2014 approved Acquisition Strategy, HMS procured 200 Full and Open Competition RR (100 per vendor).

In addition, the Government received all 2,052 LRIP SFF-B(v)1 Radios for Nett Warrior. Nett Warrior Radios are not a part of the HMS program and are procured for PEO Soldier; however, they are a part of the Rifleman Radio Army Acquisition Objective.

Foreign Military Sales

Notes

There are no FMS for the HMS program at this time.

HMS Tactical Radio products are categorized as "Major Defense Equipment" under the International Traffic in Arms Regulations. Export of Significant Military Equipment such as HMS must be approved by U.S. Department of State when embedded with Type 1 encryption. Coalition partners may purchase HMS tactical radios via FMS or possibly Direct Commercial Sales after the HMS radios successfully complete operational test and satisfy all certification requirements. In all cases, export of HMS products is subject to the following considerations: a previous export for a legacy capability does not constitute automatic approval for that legacy capability instantiated; due to embedded Type 1 encryption, all requests for sales will be adjudicated on a case-by-case basis and approved by the National Security Agency (NSA); tactical radios with waveforms installed must be certified by NSA; tactical radio waveforms, as individual products, are not authorized for sale or export.

Nuclear Costs

None

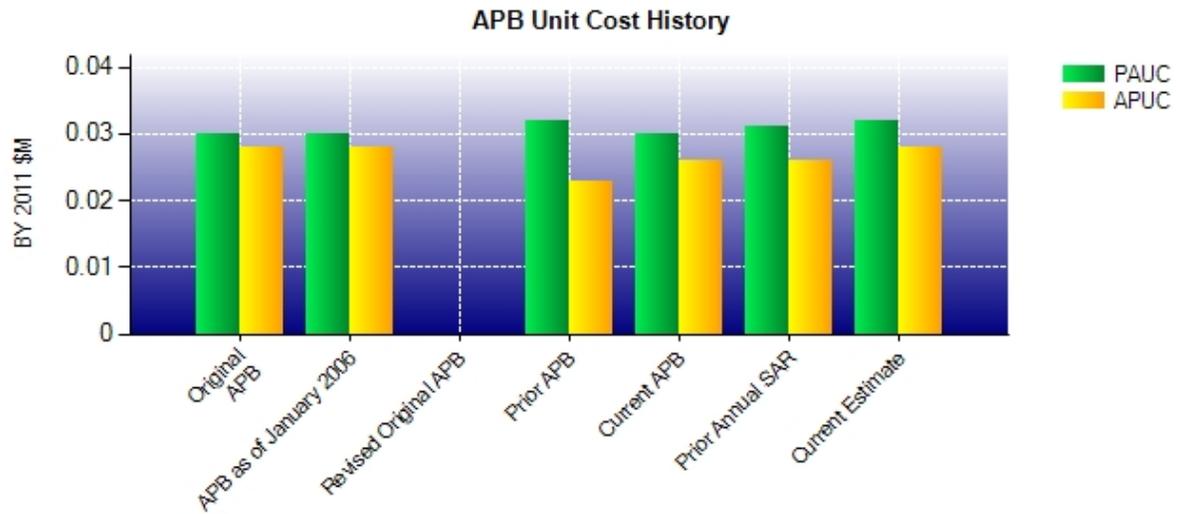
Unit Cost

Unit Cost Report

Item	BY 2011 \$M	BY 2011 \$M	% Change
	Current UCR Baseline (Oct 2011 APB)	Current Estimate (Dec 2015 SAR)	
Program Acquisition Unit Cost			
Cost	8242.6	8755.6	
Quantity	270951	271202	
Unit Cost	0.030	0.032	+6.67
Average Procurement Unit Cost			
Cost	6987.9	7442.5	
Quantity	270369	270369	
Unit Cost	0.026	0.028	+7.69

Item	BY 2011 \$M	BY 2011 \$M	% Change
	Original UCR Baseline (May 2004 APB)	Current Estimate (Dec 2015 SAR)	
Program Acquisition Unit Cost			
Cost	9889.2	8755.6	
Quantity	329574	271202	
Unit Cost	0.030	0.032	+6.67
Average Procurement Unit Cost			
Cost	9352.6	7442.5	
Quantity	328514	270369	
Unit Cost	0.028	0.028	0.00

Unit Cost History



Item	Date	BY 2011 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	May 2004	0.030	0.028	0.033	0.031
APB as of January 2006	May 2004	0.030	0.028	0.033	0.031
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Jan 2008	0.032	0.023	0.036	0.027
Current APB	Oct 2011	0.030	0.026	0.034	0.029
Prior Annual SAR	Dec 2014	0.031	0.026	0.039	0.034
Current Estimate	Dec 2015	0.032	0.028	0.040	0.035

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	
0.033	0.002	0.012	0.003	0.000	-0.018	0.000	0.002	0.001	0.034

Current SAR Baseline to Current Estimate (TY \$M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.034	0.000	0.000	0.004	0.000	0.000	0.000	0.002	0.006	0.040

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	
0.031	0.002	0.013	0.003	0.000	-0.022	0.000	0.002	-0.002	0.029

Current SAR Baseline to Current Estimate (TY \$M)									
APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.029	0.000	0.000	0.004	0.000	-0.001	0.000	0.002	0.005	0.035

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	Apr 2004	Apr 2004	Apr 2004
Milestone C	N/A	Mar 2008	May 2011	May 2011
IOC	N/A	Feb 2007	Jan 2012	Jul 2012
Total Cost (TY \$M)	N/A	10717.0	9201.0	10907.0
Total Quantity	N/A	328674	270951	271202
PAUC	N/A	0.033	0.034	0.040

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	1238.5	7962.5	--	9201.0
Previous Changes				
Economic	-3.5	+71.7	--	+68.2
Quantity	--	--	--	--
Schedule	--	+850.7	--	+850.7
Engineering	--	--	--	--
Estimating	+65.8	+30.0	--	+95.8
Other	--	--	--	--
Support	--	+271.0	--	+271.0
Subtotal	+62.3	+1223.4	--	+1285.7
Current Changes				
Economic	-2.1	-66.2	--	-68.3
Quantity	--	--	--	--
Schedule	--	+299.1	--	+299.1
Engineering	--	--	--	--
Estimating	+27.4	-168.0	--	-140.6
Other	--	--	--	--
Support	--	+330.1	--	+330.1
Subtotal	+25.3	+395.0	--	+420.3
Adjustments	--	--	--	--
Total Changes	+87.6	+1618.4	--	+1706.0
CE - Cost Variance	1326.1	9580.9	--	10907.0
CE - Cost & Funding	1326.1	9580.9	--	10907.0

Summary BY 2011 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	1254.7	6987.9	--	8242.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+36.6	+103.6	--	+140.2
Other	--	--	--	--
Support	--	+66.8	--	+66.8
Subtotal	+36.6	+170.4	--	+207.0
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	+154.8	--	+154.8
Engineering	--	--	--	--
Estimating	+21.8	-134.0	--	-112.2
Other	--	--	--	--
Support	--	+263.4	--	+263.4
Subtotal	+21.8	+284.2	--	+306.0
Adjustments	--	--	--	--
Total Changes	+58.4	+454.6	--	+513.0
CE - Cost Variance	1313.1	7442.5	--	8755.6
CE - Cost & Funding	1313.1	7442.5	--	8755.6

Previous Estimate: December 2014

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-2.1
Revised estimate as a result of Full and Open Competition testing strategy in FY 2015-2032 (Army). (Estimating)	+20.9	+26.5
Adjustment for current and prior escalation. (Estimating)	+0.9	+0.9
RDT&E Subtotal	+21.8	+25.3

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-66.2
Stretch-out of procurement buy profile from FY 2017 to FY 2032 to align with FY 2017 President's Budget (Army). (Schedule)	0.0	+177.3
Stretch-out of procurement buy profile from FY 2031 to FY 2032 to align with FY 2017 President's Budget (Marine Corps). (Schedule)	0.0	+1.8
Stretch-out of procurement buy profile from FY 2031 to FY 2032 to align with FY 2017 President's Budget (Navy). (Schedule)	0.0	+0.2
Stretch-out of procurement buy profile from FY 2031 to FY 2032 to align with FY 2017 President's Budget (Air Force). (Schedule)	0.0	+3.2
Additional schedule variance due to procurement buy profile shifting quantity in FY 2016 - FY 2032 to align with FY 2017 PB (Army). (Schedule)	+161.6	+120.0
Additional schedule variance due to procurement buy profile shifting quantity from FY 2022 - FY 2031 to FY 2023 - FY 2032 to align with FY 2017 PB (Marine Corps). (Schedule)	-2.0	-1.3
Additional schedule variance due to procurement buy profile shifting quantity from FY 2022 - FY 2031 to FY 2023 - FY 2032 to align with FY 2017 PB (Navy). (Schedule)	-0.2	-0.1
Additional schedule variance due to procurement buy profile shifting quantity from FY 2022 - FY 2031 to FY 2023 - FY 2032 to align with FY 2017 PB (Air Force). (Schedule)	-4.6	-2.0
Revised estimate to reflect actuals. (Estimating)	-68.3	-73.7
Adjustment for current and prior escalation. (Estimating)	+1.2	+1.1
Revised estimate to reflect current programmatic plans (Army). (Estimating)	-70.9	-100.6
Revised estimate to reflect current programmatic plans (Marine Corps). (Estimating)	+1.0	+1.1
Revised estimate to reflect current programmatic plans (Navy). (Estimating)	0.0	0.0
Revised estimate to reflect current programmatic plans (Air Force). (Estimating)	+3.0	+4.1
Adjustment for current and prior escalation. (Support)	+1.3	+1.5
Increase in Other Support costs to reflect current programmatic and fielding plans (Marine Corps). (Support)	+4.4	+5.7
Decrease in Other Support costs to reflect current programmatic and fielding plans (Navy). (Support)	-0.2	-0.2
Increase in Other Support costs to reflect current programmatic and fielding plans (Army). (Support)	+238.1	+293.7
Increase in Other Support costs to reflect current programmatic and fielding plans (Air Force). (Support)	+10.8	+15.3
Increase in Initial Spares costs to reflect LRIP actuals and current programmatic plans (Army). (Support)	+9.1	+14.0
Decrease in Initial Spares costs to reflect LRIP actuals and current programmatic plans (Air	-0.1	0.0

Force). (Support)		
Increase in Initial Spares costs to reflect LRIP actuals and current programmatic plans	0.0	+0.1
(Navy). (Support)		
<hr/>		
Procurement Subtotal	+284.2	+395.0

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: Thales - Rifleman Radio FOC
Contractor: Thales Defense & Security, Inc.
Contractor Location: 22605 Gateway Center Dr.
 Clarksburg, MD 20871
Contract Number: W15P7T-15-D-0015/1
Contract Type: Firm Fixed Price (FFP), Indefinite Delivery Indefinite Quantity (IDIQ)
Award Date: April 29, 2015
Definitization Date: April 29, 2015

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
2.3	N/A	0	2.6	N/A	100	2.6	2.6

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the addition of field service representative support for testing.

Cost and Schedule Variance Explanations

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

General Contract Variance Explanation

Cost variance is not reported for this contract, because it is not required for FFP contracts.

Notes

This is the first time this contract is being reported.

This is a Firm Fixed Price contract that will be administered on an Indefinite Delivery Indefinite Quantity basis as task orders are awarded.

Contract Identification

Appropriation: Procurement
Contract Name: Harris - Rifleman Radio FOC
Contractor: Harris Corporation
Contractor Location: 1680 University Ave
 Rochester, NY 14610
Contract Number: W15P7T-15-D-0016/1
Contract Type: Firm Fixed Price (FFP), Indefinite Delivery Indefinite Quantity (IDIQ)
Award Date: April 29, 2015
Definitization Date: April 29, 2015

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
2.0	N/A	0	2.2	N/A	100	2.2	2.2

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the addition of field service representative support for testing.

Cost and Schedule Variance Explanations

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

General Contract Variance Explanation

Cost and schedule variances are not reported for this contract, because it is not required for FFP contracts.

Notes

This is the first time this contract is being reported.

 This is a Firm Fixed Price contract that will be administered on an Indefinite Delivery Indefinite Quantity basis as task orders are awarded.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	833	833	833	100.00%
Production	26905	26905	270369	9.95%
Total Program Quantity Delivered	27738	27738	271202	10.23%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	10907.0	Years Appropriated	13
Expended to Date	2016.7	Percent Years Appropriated	44.83%
Percent Expended	18.49%	Appropriated to Date	2164.8
Total Funding Years	29	Percent Appropriated	19.85%

The above data is current as of February 09, 2016.

As of February 9, 2016, the Government received 19,327 LRIP Rifleman Radios and 5,326 LRIP Manpack radios as well as 200 Full and Open Competition Rifleman Radios (100 per vendor) to support competition testing and eventual fielding. In addition, the Government received all 2,052 LRIP SFF-B(v)1 Radios for Nett Warrior. Nett Warrior Radios are not a part of the HMS program and are procured for Program Executive Office Soldier; however, they are a part of the Rifleman Radio Army Acquisition Objective.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	December 01, 2015
Source of Estimate:	POE
Quantity to Sustain:	266343
Unit of Measure:	Total Quantity
Service Life per Unit:	20.00 Years
Fiscal Years in Service:	FY 2012 - FY 2052

Sustainment Life Breakdown:

Manpack Radio total quantity is 73,064, Sustainment Life is 20 years.
Rifleman Radio total quantity is 193,279, Sustainment Life is 20 years.

Small Form Fit-B (quantity of 950) and Small Form Fit-D (quantity of 3,076) are sustained by the host platform, and therefore not included in this estimate.

Developmental units (quantity of 833) will not be sustained.

Sustainment Strategy

Rifleman Radio:

All LRIP radios procured under the development contract were initially sustained by the prime contractor until expiration of the contract on February 28, 2015. A follow-on Cost Plus Fixed Fee (CPFF) LRIP Sustainment Contract was awarded to the LRIP vendor on March 29, 2015 with one base year and one option year period of performance to maintain the software baseline, deliver updated logistics support documentation, provide Field Service Representative (FSR) support, and furnish technical support to address field/operational issues. Unserviceable radios will be returned to Tobyhanna Army Depot (TYAD) for inspection and testing. Field sustainment of LRIP radios and ancillary components will be accomplished through spares requisitions through the Standard Army Supply System (SASS).

All radios procured under Full and Open Competition that become unserviceable will be turned-in to TYAD through the SASS. Radios will be returned to the original equipment manufacturer for warranty repair or replacement. Full Rate Production radios may come with a standard and/or additional warranty based on the cost and value to the Government. Upon expiration of the warranty period, there is no current plan to perform depot-level repair of the radio. Final disposition of all unserviceable radios will be accomplished at TYAD. All Full and Open Competition contracts will contain provisions to procure sustainment spares to replace unserviceable radios and ancillary items requisitioned through SASS, operations, maintenance, training documentation, and the ability to procure the software development environment and data to maintain the software baseline.

Manpack (MP):

The development contract for LRIP radios included fixed-price options for the manufacturing of production ready MP radios for operational test to establish an initial production base, development of logistics support documentation, and sustainment support. A follow-on CPFF LRIP Sustainment Contract was awarded to the LRIP vendor on March 24, 2015 to the LRIP vendor to provide continued support of LRIP radios following the development contract. Contractor repair of unserviceable LRIP radios is planned to transition to organic repair at TYAD upon the expiration of the MP radio LRIP sustainment contract.

For Full and Open Competition, MP radios will be procured through a multiple award, Firm Fixed-Price, Indefinite Delivery/Indefinite Quantity contract. The contract provides for sustainment services, which includes: warranties, radio repairs, spares, delivery and update of training material, delivery and update of technical manuals/bulletins, training, FSR support, and the management and updates to the software and hardware baselines.

Antecedent Information

No Antecedent. By the nature of the waveforms used, Soldier Radio Waveform, in current HMS products and the tactical implementation of where the waveforms are found in the formations, there are no analogous current or legacy radios to the Manpack (LRIP AN/PRC-155 and future FOC variants) or the Rifleman Radio (LRIP AN/PRC-154A and future FOC variants - initial FOC variants AN/PRC-154B and AN/PRC-159).

Annual O&S Costs BY2011 \$K			
Cost Element	JTRS HMS Average Annual Cost Per Total Quantity	No Antecedent (Antecedent) N/A	
Unit-Level Manpower	0.000		0.000
Unit Operations	0.000		0.000
Maintenance	1.965		0.000
Sustaining Support	0.047		0.000
Continuing System Improvements	0.135		0.000
Indirect Support	0.000		0.000
Other	0.000		0.000
Total	2.147		--

Item	Total O&S Cost \$M			
	JTRS HMS		No Antecedent (Antecedent)	
	Current Production APB Objective/Threshold	Current Estimate		
Base Year	14710.4	16181.4	11439.1	0.0
Then Year	20019.2	N/A	19112.6	N/A

Equation to Translate Annual Cost to Total Cost

The Total O&S cost is the Average Annual Cost (\$2.147K) * Total Number of Radios (266,343) * 20-year sustainment life / 1000.

O&S Cost Variance		
Category	BY 2011 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2014 SAR	10683.0	
Programmatic/Planning Factors	756.1	Revised estimate due to an update to reflect current programmatic and fielding plans.
Cost Estimating Methodology	0.0	

Cost Data Update	0.0
Labor Rate	0.0
Energy Rate	0.0
Technical Input	0.0
Other	0.0
Total Changes	756.1
Current Estimate	11439.1

Disposal Estimate Details

Date of Estimate: December 01, 2015
Source of Estimate: POE
Disposal/Demilitarization Total Cost (BY 2011 \$M): Total costs for disposal of all Total Quantity are 1209.2

The O&S estimate does not include Disposal costs in the amount of \$1.209B (BY\$ 2011).