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Selected Acquisition Report (SAR)

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



Handheld, Manpack, and Small Form Fit Radios (HMS)

As of FY 2019 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

UNCLASSIFIED

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Sensitivity Originator

No originator info Available at this time.

Common Acronyms and Abbreviations for MDAP Programs

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

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

Program Information

Program Name

Handheld, Manpack, and Small Form Fit Radios (HMS)

DoD Component

Army

Joint Participants

US Navy; US Marine Corps; US Air Force

Program management and execution responsibility resides with the Department of the Army per the DAE ADM 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 January 4, 2017

Mission and Description

The Handheld, Manpack and Small Form Fit (HMS) radio program is a materiel solution providing software defined radio systems that are tailorable and scalable to support the "fight tonight." HMS is an ACAT IC Program that encompasses specific requirements to support the Army, U.S. Marine Corps, Air Force, Navy and Special Operations Forces communications needs.

HMS provides voice and data communications to the expeditionary Warfighter with an on-the-move, at-the-halt and stationary Line of Sight (LOS) / Beyond Line of Sight (BLOS) capability for both mounted and dismounted personnel. HMS radio systems are software reprogrammable, networkable, multi-mode systems capable of simultaneous voice, data and video communications.

HMS encompasses the handheld radios (one-channel Rifleman Radios (RR) and two-channel Leader Radios (LR)), Manpack (MP) Radios and Small Form Fit (SFF) Radios. HMS radios will provide voice and support for data services such as text, control graphics, imagery, video and telemetry to soldiers and tactical end user devices including handheld, embedded and larger computing devices, as well as unmanned systems. The program office will continue with the ongoing competition to procure the newest generation of software defined radios capable of running threshold waveforms, to include Mobile User Objective System (MUOS) for MP and will pursue alternative waveforms to reduce the complexity of mobile ad hoc networking waveforms, improve spectral efficiency, and seek electronic counter-countermeasures improvement for operations in contested environments.

The RR is a handheld radio that connects soldiers at the lowest echelon of the Army network. It is a National Security Agency (NSA)-certified Type 1 radio used for transmission of up to Secret information. The RR provides one-channel secure voice and data communications using Soldier Radio Waveform (SRW). It is the primary squad level communication system. The LR is a multiband, two-channel handheld radio to be used at the team, squad and platoon. The LR will simultaneously support Single Channel Ground and Airborne Radio System (SINCGARS) voice interoperability, SRW data and voice communications and other advanced networking waveform communications in one radio with both handheld and mounted configurations. On September 13, 2016 the Army Acquisition Executive approved a decrease to the Basis of Issue (BOI) for the one-channel RR, an increase to the BOI for the two-channel LR to move forward with acquisition activities for the two-channel LR. One-channel RR procurement was deferred.

The MP radio is a NSA-certified Type 1 radio used for transmission of up to Secret information. MP is capable of providing two simultaneous channels of secure voice and data communications using SINCGARS, SRW, Demand Assigned Multiple Access Satellite Communication, MUOS waveform and other networking waveforms. The MP provides range extension and connects soldiers in the lower tier network to the mid-tier network. It is interoperable with legacy waveforms and capable of route and retransmission and cross-banding. The MP provides networking waveforms connectivity, Networked LOS and BLOS voice and data communications. The MP will serve as the vehicular and man-packable tactical LOS radio.

The SFF radios consist of two variants: SFF-B and SFF-D. The SFF-B is a two-channel embedded radio with Global Positioning System/Selective Availability Anti-Spoofing Module. It is a NSA-certified Type 1 radio used for transmission of up to Secret information. SFF-B was originally designed to meet Nett Warrior Radio requirements to be embedded into the Nett Warrior leader ensemble (platoon leader, platoon sergeant, squad leader and team leader). The current focus for SFF-B is for use in Unmanned Air Systems (UAS). The SFF-D is NSA-certified to protect voice and data up through the Sensitive but Unclassified level. It has one-channel with Type 2 encryption embedded into Class 1 UASs and Small Unmanned Ground Vehicles.

Executive Summary

Program Highlights Since Last Report

The Generation (GEN) 2 Manpack (MP) Radio Customer Test was completed on July 14, 2017; all three vendors (Harris Corporation, Rockwell Collins Inc. and General Dynamics Mission Systems (GDMS)) proceeded to Field / Lab Based Risk Reduction (FBRR/LBRR) test events scheduled for the 3rd Quarter of FY 2018. Delivery Order 2 was awarded on July 31, 2017 and procured test assets for the FBRR/LBRR events (101 per vendor). On August 29, 2017, at the mutual agreement of the Government and GDMS, the GEN2 MP GDMS contract was terminated for convenience. Vendors that successfully pass the FBRR / LBRR will proceed to Operational Test (OT). The FRP decision will be scheduled pending the results of the OT.

MP experienced a schedule slip for "Fielding: AN/PRC-155 Manpack with MUOS" resulting in a schedule threshold deviation due to the Navy's Mobile User Objective System (MUOS) Multi-Service Operational Test and Evaluation (MOT&E) deeming the MUOS waveform not effective and not suitable for operational use. MP will participate in the Navy's planned follow-on MOT&E 2B to evaluate corrective actions in July 2019.

MP experienced a schedule slip for the "FRP Decision Review" resulting in schedule threshold deviation due to anticipated threshold radio waveform adjustments stemming from the network review. These adjustments are necessary in order to reduce vulnerabilities and focus on solutions to address capability gaps relative to emerging threats. The program path forward is expected to evolve as the Army's Cross Functional Team for Networks conducts experiments and demonstrations to better inform requirements for the Army's network architecture. However, the MP hardware solution is capable of software-only upgrades to address network modifications.

The Request for Proposal for the Leader Radio (LR) was released to industry on September 7, 2017. On October 12, 2017, Army Contracting Command - Aberdeen Proving Ground received a protest from industry which was denied by the Government Accountability Office. Source selection is currently ongoing with a projected contract award in 3rd Quarter FY 2018. Selected vendors will be evaluated and incrementally approved to move forward to Qualification Test, FBRR/LBRR, and a Joint Operational Assessment with the Security Force Assistance Brigade in the 1st Quarter FY 2019. The FRP Decision is planned for June 2019.

A revised APB will be submitted for approval to re-baseline all program schedule threshold deviations and incorporate the new LR requirements at the next milestone decision.

As of February 12, 2018, the Government received 19,327 GEN1 RR and 5,326 GEN1 MP Radios as well as 200 GEN2 RR (100 per vendor) and 153 GEN2 MP (51 per vendor). In addition, the Government received all 2,052 Small Form Fit-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.

The HMS radio program requirements are stable and funding is adequate to meet the cost baseline. While the program did realize a risk since the last SAR due to ongoing changes to network architecture which caused schedule delays, it is not anticipated to affect the radio's overall performance capability.

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

History of Significant Developments Since Program Initiation

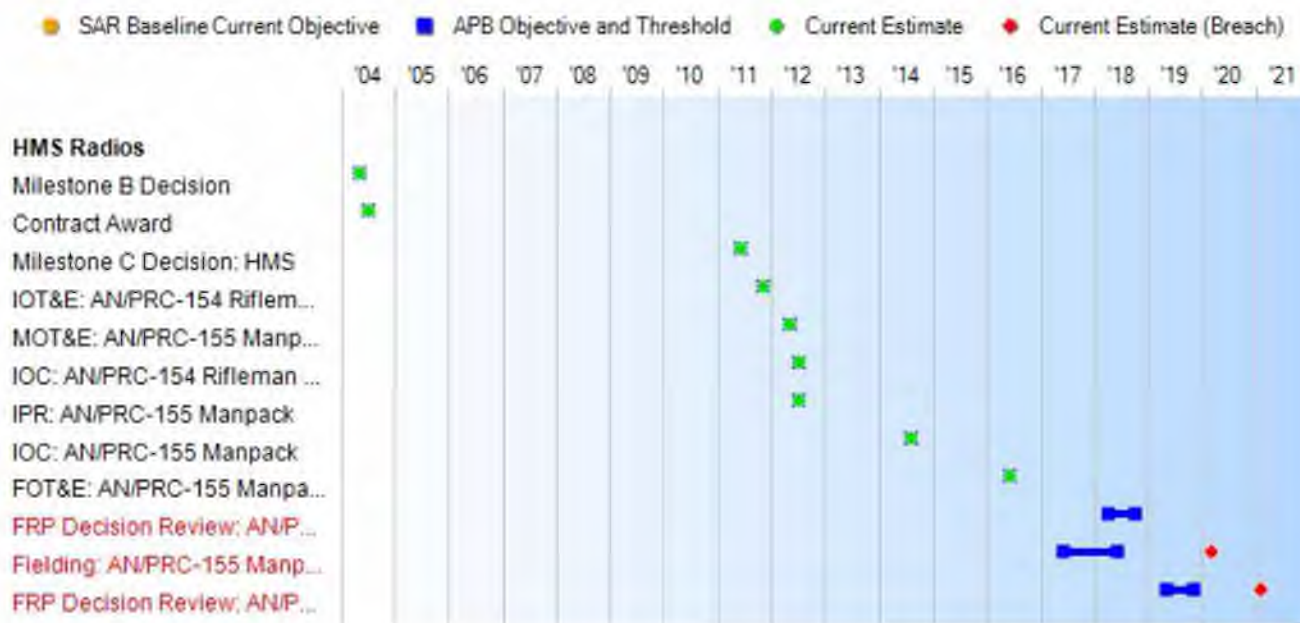
History of Significant Developments Since Program Initiation	
Date	Significant Development Description
May 2004	Milestone B Decision - Joint Tactical Radio Systems (JTRS) Cluster 5 program Milestone Decision Review was held on April 26, 2004 and approved in May 2004 to proceed into System Development and Demonstration (SDD).
July 2004	SDD Contract Award - Awarded to General Dynamics C4 Systems in July 2004. A protest was filed, the Government Accountability Office rejected the protest, work resumed in October 2004.
February 2005	All JTRS programs were re-aligned under the Joint PEO (JPEO) JTRS.
November 2005	A DAB re-planning meeting was held to restructure the JTRS Enterprise. JTRS Cluster 5 was renamed JTRS HMS.
June 2011	Milestone C Decision - JTRS HMS Milestone Decision Review was held in May 2011 and final approval received in June.
November 2011	Initial Operational Test and Evaluation: LRIP Rifleman Radio schedule event completed.
May 2012	Follow-on Operational Test and Evaluation (FOT&E): Manpack with Mobile User Objective System (MUOS) schedule event completed.
July 2012	IOC: LRIP Rifleman Radio schedule event completed.
July 2012	In-Process Review: LRIP Manpack schedule event completed.
July 2012	ADM signed that transitioned program management and execution responsibility to the Department of the Army.
December 2012	The FRP decisions for Rifleman Radio and Manpack Radio slipped from 2012 to 2015 due to a decision to transition to a full and open competition multi-vendor acquisition strategy.
May 2014	Acquisition strategy approved to procure Non-Developmental Items (NDI) through two full and open competitions (Rifleman Radio and Manpack Radio) available to all potential industry partners.
August 2014	IOC: LRIP Manpack Radio schedule event completed.
April 2015	Handheld Radio Full & Open Competition Contract Award - April 29, 2015
February 2016	Manpack Radio Full & Open Competition Contract Award - February 26, 2016
June 2016	FOT&E: Manpack with MUOS schedule event completed during the Multi-Service Operational Test & Evaluation (MOT&E) held by Navy MUOS systems. The MOT&E used the Manpack AN/PRC-155 as the platform to test the MUOS waveform and served as the HMS program's FOT&E achieving completion of the APB schedule event on June 20, 2016 when the test report was received.
January 2017	APB Revision Approved - Change 1 to the HMS Production APB was approved on January 6, 2017. This revision corrected schedule events that were previously in APB threshold deviation.
March 2017	Acquisition strategy addendum approved to procure the two-channel, handheld Leader Radio through NDI full and open competition contracts available to all potential industry partners.
March 2017	ACAT IC Delegation received March 17, 2017 naming the Secretary of the Army as the MDA.
May 2017	Leader Radio Request for Proposal and Manpack Radio test asset delivery order were delayed as a result of anticipated threshold radio waveform adjustments stemming from the 2017 Army Network

Review. These adjustments are necessary in order to reduce vulnerabilities and focus on solutions to address capability gaps relative to emerging threats.

Threshold Breaches

APB Breaches			Explanation of Breach
Schedule		<input checked="" type="checkbox"/>	HMS is reporting three schedule deviations to the current APB:
Performance		<input type="checkbox"/>	
Cost	RDT&E	<input type="checkbox"/>	The Rifleman Radio (RR) experienced a schedule deviation to its FRP decision as a result of a September 16, 2016 Configuration Steering Board decision to pursue a two-channel handheld Leader Radio (LR) and defer the RR. This deviation was previously reported in the December 2016 SAR. A Program Deviation Report (PDR) was submitted to the Army Acquisition Executive (AAE) in October of 2017.
	Procurement	<input type="checkbox"/>	
	MILCON	<input type="checkbox"/>	
	Acq O&M	<input type="checkbox"/>	
O&S Cost		<input type="checkbox"/>	The Manpack (MP) radio experienced a schedule deviation to its Fielding of MP with Mobile User Objective System (MUOS) schedule event as a result of the Navy's MUOS Multi-Service Operational Test and Evaluation (MOT&E), deeming the MUOS waveform not effective and not suitable for operational use. The Navy planned a follow-on MOT&E 2B to evaluate corrective actions in July 2019. MP fielding with MUOS is now estimated to occur in the 2nd Quarter FY 2020. A PDR is currently in staffing with the AAE.
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	The MP Radio experienced a schedule deviation to its FRP Decision as a result of anticipated threshold radio waveform adjustments stemming from the network review. These adjustments are necessary in order to reduce vulnerabilities and focus on solutions to address capability gaps relative to emerging threats. FRP is now estimated to occur in 2nd Quarter FY 2021. A PDR is in development.

Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Milestone B Decision	Apr 2004	May 2004	May 2004	May 2004
Contract Award	Jul 2004	Jul 2004	Jul 2004	Jul 2004
Milestone C Decision: HMS	May 2011	Jun 2011	Jun 2011	Jun 2011
IOT&E: AN/PRC-154 Rifleman Radio	Nov 2011	Nov 2011	Nov 2011	Nov 2011
MOT&E: AN/PRC-155 Manpack	May 2012	May 2012	May 2012	May 2012
IOC: AN/PRC-154 Rifleman Radio	Jan 2012	Jul 2012	Jul 2012	Jul 2012
IPR: AN/PRC-155 Manpack	Feb 2012	Jul 2012	Jul 2012	Jul 2012
IOC: AN/PRC-155 Manpack	Mar 2013	Aug 2014	Aug 2014	Aug 2014
FOT&E: AN/PRC-155 Manpack with MUOS	Jun 2013	Jun 2016	Jun 2016	Jun 2016
FRP Decision Review: AN/PRC-154 Rifleman Radio	May 2012	Apr 2018	Oct 2018	TBD¹
Fielding: AN/PRC-155 Manpack with MUOS	Jun 2014	Jun 2017	Jun 2018	Mar 2020¹ (Ch-1)
FRP Decision Review: AN/PRC-155 Manpack	Dec 2012	May 2019	Nov 2019	Feb 2021¹ (Ch-2)

¹ APB Breach

Change Explanations

(Ch-1) The Current Estimate for Fielding: AN/PRC-155 Manpack with MUOS changed from June 2017 to March 2020 due to the Navy's MUOS MOT&E, which deemed the MUOS waveform not effective and not suitable for operational use. The Navy will execute a follow-on MOT&E 2B to evaluate corrective actions planned for June/July of 2019.

(Ch-2) The Current Estimate for FRP Decision Review: AN/PRC-155 Manpack changed from May 2019 to February 2021 due to adjustments to the threshold waveform performance requirements of the radio. These adjustments are necessary in order to reduce vulnerabilities and focus on solutions to address capability gaps relative to emerging threats. These waveforms will not be available for testing at the planned IOT&E in November 2018 (NIE 18.2).

Notes

HMS procured the AN/PRC-154, AN/PRC-154A GEN 1 RR and the AN/PRC-155 GEN 1 MP through FY 2014. These nomenclatures will not be applicable to the FRP Decision Review events. The Full and Open Competition contracts for GEN 2 RR and GEN 2 MP allow new vendors and/or products to enter the radio marketplace, each with a unique nomenclature.

Acronyms and Abbreviations

FOT&E - Follow-On Test and Evaluation

GEN - Generation

IOT&E - Initial Operational Test and Evaluation

IPR - In-Process Review

LR - Leader Radio

MOT&E - Multi-Service Operational Test and Evaluation

MP - Manpack

MUOS - Mobile User Objective System

RR - Rifleman Radio

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	(T=O) Voice	Voice	Voice
Soldier Location: AN/PRC-154 Rifleman Radio				
Automatic PLI	Automatic PLI	(T=O) 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	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IA requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.	The system must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for transition to Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IA requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an IATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated	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

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		architecture views.		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 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.	(T=O) 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	The capability, system, and/or service must fully support execution of all operational activities and	The capability, system, and/or service must fully support execution of joint critical operational activities	MP Radio was demonstrated at NIE 14.2 as meeting its Net Ready - KPP	The capability, system, and/or service must fully support execution of joint critical operational activities
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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 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,	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 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	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 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, with the exception of a limited subset of information exchange requirements for SINCGARS voice and data, SATCOM voice, SRW / SINCGARS / SATCOM simultaneity, and route and retransmit operations.	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, 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.
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and nonrepudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS 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 21, 2013 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 Generation 1 MP, HMS coordinated with the U.S. Army Natick Soldier Research, Development and Engineering Center to design an enhanced

rucksack which improves the performance of the MP. The redesigned rucksack provides improved weight distribution and heat dissipation. This rucksack was certified for airborne operations through testing conducted by 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
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
SINCGARS - 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	(Sunk)
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	(Sunk)
Navy	1810	02	0204163N
	Line Item	Name	
	3057	Communication Items Under \$5M	(Sunk)
Army	2035	02	0604280A
	Line Item	Name	
	B90210	JTRS Cluster 5 (Handheld)	(Sunk)
	B90215	JTRS (Manpack)	(Sunk)
	B95006	Handheld Radio	
	B95007	Manpack Radio	
Army	2035	03	0604827A
	Line Item	Name	
	R80501	Ground Soldier System	(Sunk)
Air Force	3080	03	0207423F
	Line Item	Name	
	837100	Tactical C-E Equipment	(Shared)

Notes

B90000 is the parent for JTRS Cluster 5 (Handheld - B90210) and JTRS (Manpack - B90215).

B95004 is the parent for Handheld Radio (B95006) and Manpack Radio (B95007).

Several approved reprogramming actions repurposed excess FY 2017 Procurement from B95007. An approved Above Threshold Reprogramming (ATR) repurposed \$90.0M from B95007 to support Security Force Assistance Brigade (SFAB) procurements. These funds will remain in B95007 as SFAB does not have an active funding line and will be executed by the HMS program office but are not included in HMS program costs. An approved ATR repurposed \$0.520M from B95007 to support Automated Data Processing Equipment. An approved ATR repurposed \$3.149M from B95007 to support Load Source per 17-20 PA Indian Finance Act. An approved Below Threshold Reprogramming repurposed \$5.003M to support PM Mid-tier Networking Vehicular Radio.

Acq O&M

Appn	BA	PE
Army	2020 04	0702806A
Subactivity Group	Name	
435	Acquisition and Management Support: Tactical Radios (Shared)	

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	1257.0	1382.7	1268.4	1238.5	1238.5	1261.7
Procurement	6987.9	6952.9	7648.2	7075.0	7962.5	7962.5	9015.8
Flyaway	--	--	--	5324.7	--	--	6815.4
Recurring	--	--	--	5137.1	--	--	6602.2
Non Recurring	--	--	--	187.6	--	--	213.2
Support	--	--	--	1750.3	--	--	2200.4
Other Support	--	--	--	1559.2	--	--	1954.2
Initial Spares	--	--	--	191.1	--	--	246.2
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	91.2	0.0	0.0	119.7
Total	8242.6	8209.9	N/A	8434.6	9201.0	9201.0	10397.2

Current APB Cost Estimate Reference

HMS cost estimate is the 2011 MS C APB as reflected in the CAPE ICE dated October 20, 2011

Cost Notes

In accordance with section 842 of the National Defense Authorization Act for FY 2017, which amended title 10 U.S.C. § 2334, the Director of Cost Assessment and Program Evaluation, and the Secretary of the military department concerned or the head of the Defense Agency concerned, must issue guidance requiring a discussion of risk, the potential impacts of risk on program costs, and approaches to mitigate risk in cost estimates for MDAPs and major subprograms. The information required by the guidance is to be reported in each SAR. This guidance is not yet available; therefore, the information on cost risk is not contained in this SAR.

Beginning in FY 2019, the Army realigned direct civilian personnel pay costs from RDT&E and Procurement investment accounts to O&M to provide additional transparency and auditability.

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

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

Handheld Radios (Army) - 193,279:
 Leader Radio Dismounted - 60,382
 Leader Radio Mounted - 39,618
 Rifleman Radio - 93,279

Manpack (Army) - 65,622:
 Dismounted - 23,336
 Single Vehicle Mounted - 24,549
 Dual Vehicle Mounted - 17,737

Manpack (Other Services) - 7,442:
 Dismounted - 3,357
 Single Vehicle Mounted - 4,085

Small Form Fit-B - 950

Small Form Fit-D - 3,076

The quantity for Leader Radio above is reflected in the approved Rifleman Radio Increment 2 (Leader Radio) CPD and will be included in a revised APB.

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2019 President's Budget / December 2017 SAR (TY\$ M)									
Appropriation	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
RDT&E	1159.2	20.1	3.8	10.1	21.8	22.1	24.6	0.0	1261.7
Procurement	1194.8	355.4	351.6	516.8	495.0	549.1	598.0	4955.1	9015.8
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	6.7	8.5	7.8	8.0	8.1	80.6	119.7
PB 2019 Total	2354.0	375.5	362.1	535.4	524.6	579.2	630.7	5035.7	10397.2
PB 2018 Total	2453.3	375.5	366.2	410.1	424.8	497.1	474.9	5814.9	10816.8
Delta	-99.3	0.0	-4.1	125.3	99.8	82.1	155.8	-779.2	-419.6

Quantity Summary										
FY 2019 President's Budget / December 2017 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Development	833	0	0	0	0	0	0	0	0	833
Production	0	27260	3448	8884	11767	10139	11232	12557	185082	270369
PB 2019 Total	833	27260	3448	8884	11767	10139	11232	12557	185082	271202
PB 2018 Total	833	28029	3152	6492	7663	7776	9268	9216	198773	271202
Delta	0	-769	296	2392	4104	2363	1964	3341	-13691	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	--	--	--	--	--	--	79.8
Subtotal	271	--	--	--	--	--	861.6

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	--	--	--	--	--	--	14.2
2018	--	--	--	--	--	--	20.1
2019	--	--	--	--	--	--	3.8
2020	--	--	--	--	--	--	10.1
2021	--	--	--	--	--	--	21.8
2022	--	--	--	--	--	--	22.1
2023	--	--	--	--	--	--	24.6
Subtotal	562	--	--	--	--	--	406.0

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	--	--	--	--	--	--	12.7
2018	--	--	--	--	--	--	17.7
2019	--	--	--	--	--	--	3.3
2020	--	--	--	--	--	--	8.6
2021	--	--	--	--	--	--	18.2
2022	--	--	--	--	--	--	18.1
2023	--	--	--	--	--	--	19.8
Subtotal	562	--	--	--	--	--	406.8

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
2025	305	17.0	--	--	17.0	1.3	18.3
2026	299	16.7	--	--	16.7	1.3	18.0
2027	299	16.9	--	--	16.9	1.3	18.2
2028	299	17.1	--	--	17.1	1.3	18.4
2029	299	17.4	--	--	17.4	1.3	18.7
2030	298	17.5	--	--	17.5	1.3	18.8
2031	297	17.7	--	--	17.7	1.3	19.0
2032	297	18.0	--	--	18.0	1.4	19.4
Subtotal	2393	138.3	--	--	138.3	10.5	148.8

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
2025	305	13.0	--	--	13.0	1.0	14.0
2026	299	12.5	--	--	12.5	1.0	13.5
2027	299	12.4	--	--	12.4	1.0	13.4
2028	299	12.3	--	--	12.3	0.9	13.2
2029	299	12.3	--	--	12.3	0.9	13.2
2030	298	12.1	--	--	12.1	0.9	13.0
2031	297	12.0	--	--	12.0	0.9	12.9
2032	297	12.0	--	--	12.0	0.9	12.9
Subtotal	2393	98.6	--	--	98.6	7.5	106.1

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	--	--	--	--	--	--	--
2024	--	--	--	--	--	--	--
2025	25	1.4	--	--	1.4	0.2	1.6
2026	25	1.4	--	--	1.4	0.2	1.6
2027	25	1.4	--	--	1.4	0.2	1.6
2028	25	1.4	--	--	1.4	0.2	1.6
2029	25	1.4	--	--	1.4	0.2	1.6
2030	25	1.5	--	--	1.5	0.2	1.7
2031	25	1.5	--	--	1.5	0.1	1.6
2032	25	1.5	--	--	1.5	0.1	1.6
Subtotal	250	14.9	--	--	14.9	1.4	16.3

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	--	--	--	--	--	--	--
2024	--	--	--	--	--	--	--
2025	25	1.1	--	--	1.1	0.1	1.2
2026	25	1.1	--	--	1.1	0.1	1.2
2027	25	1.0	--	--	1.0	0.2	1.2
2028	25	1.0	--	--	1.0	0.2	1.2
2029	25	1.0	--	--	1.0	0.1	1.1
2030	25	1.0	--	--	1.0	0.2	1.2
2031	25	1.0	--	--	1.0	0.1	1.1
2032	25	1.0	--	--	1.0	0.1	1.1
Subtotal	250	11.5	--	--	11.5	1.1	12.6

Annual Funding							
2035 Procurement Other Procurement, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
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	153	32.7	--	2.0	34.7	19.9	54.6
2017	202	62.7	--	65.7	128.4	46.6	175.0
2018	3448	234.0	--	8.0	242.0	113.4	355.4
2019	8884	277.1	--	--	277.1	74.5	351.6
2020	11767	377.3	--	34.7	412.0	104.8	516.8
2021	10139	363.6	--	10.2	373.8	121.2	495.0
2022	11232	396.5	--	31.8	428.3	120.8	549.1
2023	12557	472.3	--	--	472.3	125.7	598.0
2024	13362	495.1	--	--	495.1	128.3	623.4
2025	20899	361.3	--	--	361.3	117.8	479.1
2026	20899	362.4	--	--	362.4	117.8	480.2
2027	20424	342.8	--	--	342.8	117.4	460.2
2028	20423	346.4	--	--	346.4	116.9	463.3
2029	20421	350.5	--	--	350.5	117.9	468.4
2030	20421	354.9	--	--	354.9	118.5	473.4
2031	20421	359.6	--	--	359.6	119.7	479.3
2032	20420	364.6	--	--	364.6	119.0	483.6
Subtotal	262927	6090.1	--	213.2	6303.3	2164.9	8468.2

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	185.3	229.6
2015	200	1.3	--	--	1.3	17.7	19.0
2016	153	29.6	--	1.8	31.4	18.1	49.5
2017	202	55.9	--	58.5	114.4	41.5	155.9
2018	3448	204.9	--	7.0	211.9	99.2	311.1
2019	8884	238.0	--	--	238.0	64.0	302.0
2020	11767	317.8	--	29.2	347.0	88.3	435.3
2021	10139	300.2	--	8.4	308.6	100.1	408.7
2022	11232	321.0	--	25.7	346.7	97.8	444.5
2023	12557	374.8	--	--	374.8	99.8	474.6
2024	13362	385.2	--	--	385.2	99.9	485.1
2025	20899	275.6	--	--	275.6	89.9	365.5
2026	20899	271.0	--	--	271.0	88.1	359.1
2027	20424	251.3	--	--	251.3	86.1	337.4
2028	20423	249.0	--	--	249.0	84.0	333.0
2029	20421	247.0	--	--	247.0	83.1	330.1
2030	20421	245.2	--	--	245.2	81.9	327.1
2031	20421	243.6	--	--	243.6	81.1	324.7
2032	20420	242.1	--	--	242.1	79.1	321.2
Subtotal	262927	4766.5	--	187.6	4954.1	1724.5	6678.6

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
2025	601	42.8	--	--	42.8	2.8	45.6
2026	600	43.3	--	--	43.3	2.8	46.1
2027	600	43.9	--	--	43.9	2.9	46.8
2028	600	44.5	--	--	44.5	2.9	47.4
2029	600	45.1	--	--	45.1	3.0	48.1
2030	600	45.8	--	--	45.8	3.0	48.8
2031	599	46.4	--	--	46.4	3.1	49.5
2032	599	47.1	--	--	47.1	3.1	50.2
Subtotal	4799	358.9	--	--	358.9	23.6	382.5

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
2025	601	33.3	--	--	33.3	2.2	35.5
2026	600	33.0	--	--	33.0	2.2	35.2
2027	600	32.9	--	--	32.9	2.1	35.0
2028	600	32.6	--	--	32.6	2.2	34.8
2029	600	32.4	--	--	32.4	2.2	34.6
2030	600	32.3	--	--	32.3	2.1	34.4
2031	599	32.1	--	--	32.1	2.1	34.2
2032	599	31.9	--	--	31.9	2.1	34.0
Subtotal	4799	260.5	--	--	260.5	17.2	277.7

Annual Funding		
2020	Acq O&M	Operation and Maintenance, Army
Fiscal Year	TY \$M	
	Total Program	
2019		6.7
2020		8.5
2021		7.8
2022		8.0
2023		8.1
2024		8.3
2025		8.4
2026		8.6
2027		8.8
2028		8.9
2029		9.1
2030		9.3
2031		9.5
2032		9.7
Subtotal		119.7

Annual Funding 2020 Acq O&M Operation and Maintenance, Army	
Fiscal Year	BY 2011 \$M
	Total Program
2019	5.8
2020	7.3
2021	6.5
2022	6.6
2023	6.5
2024	6.5
2025	6.5
2026	6.5
2027	6.5
2028	6.5
2029	6.5
2030	6.5
2031	6.5
2032	6.5
Subtotal	91.2

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	6/17/2011	5/1/2014
Approved Quantity	6350	27260
Reference	Milestone C ADM	LRIP ADM & 2014 Acquisition Strategy
Start Year	2011	2011
End Year	2012	2017

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the program's revised May 1, 2014 Acquisition Strategy that requires Full and Open Competition for Handheld and Manpack (MP) radios and subsequent additional testing prior to FRP Decision.

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 Generation (GEN) 1 Rifleman Radios (RR) (AN/PRC-154) and 100 GEN 1 MP radios (AN/PRC-155). The ADM directed the Services to fund to the OSD CAPE ICE position. A follow-on ADM signed July 11, 2012 approved the procurement of an additional LRIP of 13,077 GEN 1 RR. An October 11, 2012 ADM authorized an additional LRIP procurement of up to 3,726 GEN 1 MP. A December 12, 2013 ADM authorized LRIP procurement of an additional 1,500 GEN 1 MP. In accordance with the program's May 1, 2014 approved Acquisition Strategy, HMS procured 200 GEN 2 RR (100 per vendor) and 153 GEN 2 MP (51 per vendor). Also in accordance with the program's May 1, 2014 approved Acquisition Strategy, an additional 202 GEN 2 MP were procured (101 per vendor) - the third vendor for GEN 2 MP was terminated for convenience in August of 2017.

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.

Foreign Military Sales

Notes

There are no FMS for this program.

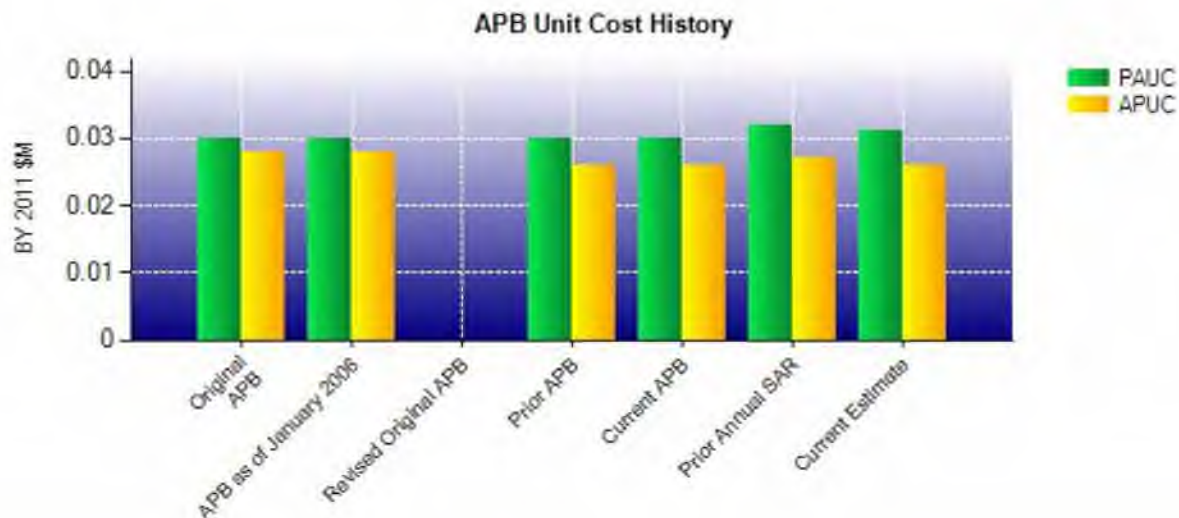
HMS Radio products are categorized as Major Defense Equipment under the International Traffic in Arms Regulations. Export of Significant Military Equipment, such as HMS radios, must be approved by the U.S. Department of State when embedded with Type 1 crypto. Coalition partners may purchase HMS radios via FMS or possibly, Direct Commercial Sales, once 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 crypto; 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 (Sharing of the Link 16 waveform with the Multifunctional Information Distribution System (MIDS) participants per the MIDS Memorandum of Understanding is the only current exception to this rule); HMS variants may be available for foreign sales opportunities in the future. Release guidance for all configurations is closely controlled by NSA and each sale is adjudicated on a case-by-case basis.

Nuclear Costs

None

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2011 \$M	BY 2011 \$M	% Change
	Current UCR Baseline (Jan 2017 APB)	Current Estimate (Dec 2017 SAR)	
Program Acquisition Unit Cost			
Cost	8209.9	8434.6	
Quantity	270951	271202	
Unit Cost	0.030	0.031	+3.33
Average Procurement Unit Cost			
Cost	6952.9	7075.0	
Quantity	270369	270369	
Unit Cost	0.026	0.026	0.00
Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2011 \$M	BY 2011 \$M	% Change
	Original UCR Baseline (May 2004 APB)	Current Estimate (Dec 2017 SAR)	
Program Acquisition Unit Cost			
Cost	9889.2	8434.6	
Quantity	329574	271202	
Unit Cost	0.030	0.031	+3.33
Average Procurement Unit Cost			
Cost	9352.6	7075.0	
Quantity	328514	270369	
Unit Cost	0.028	0.026	-7.14



APB 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	Oct 2011	0.030	0.026	0.034	0.029
Current APB	Jan 2017	0.030	0.026	0.034	0.029
Prior Annual SAR	Dec 2016	0.032	0.027	0.040	0.035
Current Estimate	Dec 2017	0.031	0.026	0.038	0.033

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	-0.001	0.000	0.001	0.004	0.038

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	0.001	0.004	0.033

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	May 2004
Milestone C	N/A	Mar 2008	May 2011	Jun 2011
IOC	N/A	Feb 2007	Jan 2012	Jul 2012
Total Cost (TY \$M)	N/A	10717.0	9201.0	10397.2
Total Quantity	N/A	328674	270951	271202
PAUC	N/A	0.033	0.034	0.038

Cost Variance

Summary TY \$M					
Item	RDT&E	Procurement	MILCON	Acq O&M	Total
SAR Baseline (Production Estimate)	1238.5	7962.5	--	--	9201.0
Previous Changes					
Economic	-5.6	+19.3	--	--	+13.7
Quantity	--	--	--	--	--
Schedule	--	+1229.9	--	--	+1229.9
Engineering	--	--	--	--	--
Estimating	+94.2	-388.3	--	--	-294.1
Other	--	--	--	--	--
Support	--	+666.3	--	--	+666.3
Subtotal	+88.6	+1527.2	--	--	+1615.8
Current Changes					
Economic	-2.4	-73.5	--	--	-75.9
Quantity	--	--	--	--	--
Schedule	--	-31.7	--	--	-31.7
Engineering	--	--	--	--	--
Estimating	-63.0	+46.2	--	+119.7	+102.9
Other	--	--	--	--	--
Support	--	-414.9	--	--	-414.9
Subtotal	-65.4	-473.9	--	+119.7	-419.6
Total Changes	+23.2	+1053.3	--	+119.7	+1196.2
CE - Cost Variance	1261.7	9015.8	--	119.7	10397.2
CE - Cost & Funding	1261.7	9015.8	--	119.7	10397.2

Summary BY 2011 \$M					
Item	RDT&E	Procurement	MILCON	Acq O&M	Total
SAR Baseline (Production Estimate)	1254.7	6987.9	--	--	8242.6
Previous Changes					
Economic	--	--	--	--	--
Quantity	--	--	--	--	--
Schedule	--	+145.9	--	--	+145.9
Engineering	--	--	--	--	--
Estimating	+61.2	-183.8	--	--	-122.6
Other	--	--	--	--	--
Support	--	+386.8	--	--	+386.8
Subtotal	+61.2	+348.9	--	--	+410.1
Current Changes					
Economic	--	--	--	--	--
Quantity	--	--	--	--	--
Schedule	--	--	--	--	--
Engineering	--	--	--	--	--
Estimating	-47.5	+81.0	--	+91.2	+124.7
Other	--	--	--	--	--
Support	--	-342.8	--	--	-342.8
Subtotal	-47.5	-261.8	--	+91.2	-218.1
Total Changes	+13.7	+87.1	--	+91.2	+192.0
CE - Cost Variance	1268.4	7075.0	--	91.2	8434.6
CE - Cost & Funding	1268.4	7075.0	--	91.2	8434.6

Previous Estimate: December 2016

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-2.4
Adjustment for current and prior escalation. (Estimating)	+0.2	+0.2
Revised estimate to reflect funding transition from RDT&E funded testing to Procurement funded testing from FY 2024 - FY 2032 (Army). (Estimating)	-45.8	-61.2
Revised estimate due to changes in test strategy and schedules as well as FY 2017 actuals (Army). (Estimating)	-1.9	-2.0
RDT&E Subtotal	-47.5	-65.4

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-73.5
Stretch-out of procurement buy profile from FY 2024 - FY 2032 to align with FY 2019 PB (Marine Corps). (Schedule)	0.0	+0.7
Acceleration of procurement buy profile from FY 2024 - FY 2032 to align with FY 2019 PB (Navy). (Schedule)	0.0	-0.1
Acceleration of procurement buy profile from FY 2018 - FY 2032 to align with FY 2019 PB (Army). (Schedule)	0.0	-33.6
Stretch-out of procurement buy profile from FY 2024 - FY 2032 to align with FY 2019 PB (Air Force). (Schedule)	0.0	+1.3
Adjustment for current and prior escalation. (Estimating)	+2.6	+2.8
Revised estimate to reflect the Army's realignment of direct civilian pay costs from Procurement investment accounts to O&M to provide additional transparency and auditability (Army). (Estimating)	-90.0	-119.7
Revised estimate to align with FY 2019 PB which resulted in program fielding schedule adjustments (Marine Corps). (Estimating)	-1.0	-0.6
Revised estimate to align with FY 2019 PB which resulted in program fielding schedule adjustments (Navy). (Estimating)	+0.6	+0.8
Revised estimate to align with FY 2019 PB which resulted in program fielding schedule adjustments (Army). (Estimating)	+169.5	+161.6
Revised estimate to align with FY 2019 PB which resulted in program fielding schedule adjustments (Air Force). (Estimating)	-0.7	+1.3
Adjustment for current and prior escalation. (Support)	+1.9	+2.2
Increase in Other Support costs to adjust program's actual funding to SAR dollar precision (Marine Corps). (Support)	+0.1	-0.3
Decrease in Other Support costs to adjust program's actual funding to SAR dollar precision (Navy). (Support)	0.0	-0.3
Decrease in Other Support costs to adjust program's actual funding to SAR dollar precision (Air Force). (Support)	-0.1	-0.1
Decrease in Other Support costs as a result of refined vehicle integration estimates received from the vehicle Program Managers and reprogramming actions in FY 2017 (Army). (Support)	-351.2	-420.9
Decrease in Initial Spares to adjust program's actual funding to SAR dollar precision (Marine Corps). (Support)	-0.1	+0.1

Decrease in Initial Spares to adjust program's actual funding to SAR dollar precision (Navy). (Support)	-0.1	-0.1
Increase in Initial Spares due to refined Delivery Order plan in FY 2018 requiring increased initial spares (Army). (Support)	+7.0	+4.6
Decrease in Initial Spares to adjust program's actual funding to SAR dollar precision (Air Force). (Support)	-0.3	-0.1
Procurement Subtotal	-261.8	-473.9

Acq O&M	\$M	
Current Change Explanations	Base Year	Then Year
Revised estimate to reflect the Army's realignment of direct civilian pay costs from Procurement investment accounts to O&M to provide additional transparency and auditability (Army). (Estimating)	+91.2	+119.7
Acq O&M Subtotal	+91.2	+119.7

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: Thales - Generation 2 Rifleman Radio
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.

Notes

This is a FFP contract that is administered on an IDIQ basis as task orders are awarded.

Contract Identification

Appropriation: Procurement
Contract Name: Harris - Generation 2 Rifleman Radio
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.

Notes

This is a FFP contract that is administered on an IDIQ basis as task orders are awarded.

Contract Identification

Appropriation: Procurement
Contract Name: Harris - Generation 2 Manpack Radio
Contractor: Harris Corporation
Contractor Location: 1680 University Avenue
Rochester, NY 14610
Contract Number: W15P7T-16-D-0002/1
Contract Type: Firm Fixed Price (FFP), Indefinite Delivery Indefinite Quantity (IDIQ)
Award Date: February 26, 2016
Definitization Date: February 26, 2016

Contract Price

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
1.4	N/A	0	21.5	N/A	152	21.5	21.5

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the award of Delivery Orders 0002 and 0003. These awards procure radios, necessary ancillaries and documentation to assess delayed performance thresholds and support subsequent fielding activities.

Cost and Schedule Variance Explanations

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

Notes

This is a FFP contract that is administered on an IDIQ basis as task orders are awarded.

Contract Identification

Appropriation: Procurement
Contract Name: Rockwell Collins - Generation 2 Manpack Radio
Contractor: Rockwell Collins Inc.
Contractor Location: 400 Collins Road NE
 Cedar Rapids, IA 52498
Contract Number: W15P7T-16-D-0003/1
Contract Type: Firm Fixed Price (FFP), Indefinite Delivery Indefinite Quantity (IDIQ)
Award Date: February 26, 2016
Definitization Date: February 26, 2016

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
4.3	N/A	0	27.9	N/A	152	27.9	27.9

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the award of Delivery Orders 0002 and 0003. These awards procure radios, necessary ancillaries and documentation to assess delayed performance thresholds and support subsequent fielding activities.

Cost and Schedule Variance Explanations

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

Notes

This is a FFP contract that is administered on an IDIQ basis as task orders are awarded.

Contract Identification

Appropriation: Procurement
Contract Name: General Dynamics - Generation 2 Manpack Radio
Contractor: General Dynamics
Contractor Location: 8220 East Roosevelt Street
 Scottsdale, AZ 85257
Contract Number: W15P7T-16-D-0004/1
Contract Type: Firm Fixed Price (FFP), Indefinite Delivery Indefinite Quantity (IDIQ)
Award Date: February 26, 2016
Definitization Date: February 26, 2016

Contract Price

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
6.0	N/A	0	16.1	N/A	51	16.1	16.1

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the award of Contract Modification 7. This option award procures radios and necessary ancillaries to conduct the Customer Test and subsequent fielding.

Cost and Schedule Variance Explanations

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

Notes

As of August 29, 2017, this contract was terminated for convenience.

This contract is more than 90% complete; therefore, this is the final report for this contract.

Contract Identification

Appropriation: Procurement
Contract Name: Generation 1 Manpack Radio Modification Contract
Contractor: General Dynamics Mission Systems, Inc.
Contractor Location: 8201 E McDowell Rd
 Scottsdale, AZ 05257
Contract Number: W15P7T-15-C-0002
Contract Type: Cost Plus Fixed Fee (CPFF), Firm Fixed Price (FFP)
Award Date: March 25, 2015
Definitization Date: March 31, 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
35.7	N/A	0	76.3	N/A	0	76.3	76.3

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the award of an extension to the initial contract.

Cost and Schedule Variance Explanations

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

General Contract Variance Explanation

The program office is pursuing a waiver for cost and schedule variance reporting. Cost and schedule variance reporting was not required previously as the CPFF portion of the contract did not meet the threshold for reporting. An 18 month extension was awarded in March of 2017 that increased the CPFF portion above the reporting thresholds.

Notes

The Manpack Radio Generation 1 Modification Contract is used as an interim contract to provide hardware and software augmentations necessary to meet new requirements and mission essential updates, post production and prior to transition to sustainment.

Contract Identification

Appropriation: Procurement
Contract Name: Generation 1 Rifleman Radio Modification Contract
Contractor: General Dynamics Mission Systems, Inc.
Contractor Location: 8201 E McDowell Rd
 Scottsdale, AZ 85257
Contract Number: W15P7T-15-C-0005
Contract Type: Cost Plus Fixed Fee (CPFF), Firm Fixed Price (FFP)
Award Date: March 26, 2015
Definitization Date: April 01, 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
34.6	N/A	0	40.1	N/A	0	40.1	40.1

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the award of an extension to the initial contract.

Cost and Schedule Variance Explanations

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

General Contract Variance Explanation

The program office is pursuing a waiver for cost and schedule variance reporting. Cost and schedule variance reporting was not required previously as the CPFF portion of the contract did not meet the threshold for reporting. An 18 month extension was awarded in March of 2017 that increased the CPFF portion above the reporting thresholds.

Notes

The Rifleman Radio Generation 1 Modification Contract is used as an interim contract to provide hardware and software augmentations necessary to meet new requirements and mission essential updates, post production and prior to transition to sustainment.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	833	833	833	100.00%
Production	27058	27058	270369	10.01%
Total Program Quantity Delivered	27891	27891	271202	10.28%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	10397.2	Years Appropriated	15
Expended to Date	2435.9	Percent Years Appropriated	51.72%
Percent Expended	23.43%	Appropriated to Date	2729.5
Total Funding Years	29	Percent Appropriated	26.25%

The above data is current as of February 12, 2018.

As of February 12, 2018, the Government received 19,327 Generation (GEN) 1 Rifleman Radios (RR) and 5,326 GEN1 Manpack radios. The Government received 200 GEN2 RR (100 from each vendor) and 153 GEN2 MP (51 from each vendor). The Government ordered an additional 202 GEN2 MP (101 from each remaining vendor) with delivery expected to begin in April 2018. In addition, the Government received all 2,052 GEN1 SFF-B(v)1 Radios for Nett Warrior. Note: 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.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	December 31, 2017
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 93,279, Sustainment Life is 20 years.

Leader Radio total quantity is 100,000, 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 not included in this estimate.

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

Sustainment Strategy

Manpack (MP):

The development contract for Generation (GEN) 1 radios includes 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 Firm Fixed Price (FFP) / Cost Plus Fixed Fee (CPFF) GEN 1 Modification Contract was awarded to the GEN 1 vendor on March 24, 2015 to provide continued support of GEN 1 radios following the development contract. Contractor repair of unserviceable GEN 1 radios is planned to begin to transition to organic repair at Tobyhanna Army Depot (TYAD) upon the expiration of the MP Radio GEN 1 Modification Contract. An extension to this contract was awarded to support the transition to TYAD with a period of performance through September 30, 2018.

For GEN 2, MP Radios will be procured through a multiple award, FFP, 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, Field Service Representative (FSR) support and the management and updates to the software and hardware baselines.

Leader Radio (LR):

All LR procured by HMS that become unserviceable will be returned to TYAD through the Standard Army Supply System (SASS). Radios will be returned to the Original Equipment Manufacturer for warranty repair or replacement. LR 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 LR 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.

Rifleman Radio (RR):

All GEN 1 RR procured under the development contract were initially sustained by the prime contractor until expiration of the contract on February 28, 2015. A follow-on FFP/CPFF GEN 1 Modification Contract was awarded to the GEN 1 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 FSR support and furnish technical support to address field and operational issues. Unserviceable radios will be returned to TYAD for inspection and testing. Field sustainment of GEN 1 radios and ancillary components will be accomplished through spares requisitioned through the SASS. An extension to this contract was awarded to support the transition to TYAD with a period of performance through September 30, 2018.

All GEN 2 RR (requirement currently deferred) that become unserviceable will be returned to TYAD through the SASS. Radios will be returned to the original equipment manufacturer for warranty repair or replacement. GEN 2 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 GEN 2 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.

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 MP (GEN 1 AN/PRC-155 and future GEN 2 variants) or the RR (GEN 1 AN/PRC-154A and future GEN 2 variants). A determination of antecedents will be made on the LR once the requirements for the radio system and network architecture are approved.

Annual O&S Costs BY2011 \$K			
Cost Element	HMS Radios 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	1.935		0.000
Sustaining Support	0.046		0.000
Continuing System Improvements	0.155		0.000
Indirect Support	0.000		0.000
Other	0.000		0.000
Total	2.136		--

Item	Total O&S Cost \$M			
	HMS Radios			No Antecedent (Antecedent)
	Current Production APB Objective/Threshold		Current Estimate	
Base Year	14710.4	16181.4	11380.9	N/A
Then Year	20019.2	N/A	19025.4	N/A

Equation to Translate Annual Cost to Total Cost

The Total O&S cost is the Average Annual Cost (\$2.136K) x Total Number of Radios (266,343) x 20-year sustainment life / 1000.

O&S Cost Variance		
Category	BY 2011 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2016 SAR	12144.7	
Programmatic/Planning Factors	0.0	
Cost Estimating Methodology	-211.6	Revised estimating methodologies due to delayed transition of GEN 1 MP and RR to organic sustainment.
Cost Data Update	-552.2	Revised estimate due to an update to GEN 2 MP unit cost reductions resulting from competition savings and fewer vendors competing (i.e. - Fewer software/hardware baselines to maintain).
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Other	0.0	
Total Changes	-763.8	
Current Estimate	11380.9	

Disposal Estimate Details

Date of Estimate: December 31, 2017
Source of Estimate: POE
Disposal/Demilitarization Total Cost (BY 2011 \$M): Total costs for disposal of all Total Quantity are 1149.6

The O&S estimate does not include Disposal costs in the amount of \$1,149.6 (BY 2011 \$M).