

UNCLASSIFIED



**CLEARED AS AMENDED
For Open Publication**

Sep 27, 2024

Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

Modernized Selected Acquisition Report (MSAR) Handheld, Manpack, and Small Form Fit Radios (HMS)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

UNCLASSIFIED

Table of Contents

Common DoD Abbreviations	3
Program Description	5
Responsible Office	7
Executive Summary	8
Schedule	11
Performance	13
Acquisition Budget Estimate	24
Unit Costs	26
Life-Cycle Costs	27
Technologies and Systems Engineering	29
Performing Activities and Contracts	30
Production	33
Deliveries and Expenditures	34
International Program Aspects	35

(U) Common DoD Abbreviations

\$B	Billions of Dollars
\$K	Thousands of Dollars
\$M	Millions of Dollars
ACAT	Acquisition Category
Acq O&M	Acquisition-Related Operations and Maintenance
ADM	Acquisition Decision Memorandum
APA	Additional Performance Attribute
APB	Acquisition Program Baseline
APPN	Appropriation
APUC	Average Procurement Unit Cost
BA	Budget Authority or Budget Activity
Blk	Block
BY	Base Year
CAE	Component Acquisition Executive
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis Requirements Description
CCE	Component Cost Estimate
CCP	Component Cost Position
CDD	Capability Development Document
CLIN	Contract Line Item Number
CPD	Capability Production Document
CY	Calendar Year or Constant Year
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary
DAVE	Defense Acquisition Visibility Environment
DoD	Department of Defense
DSN	Defense Switched Network
EMD	Engineering and Manufacturing Development
EVM	Earned Value Management
FD	Full Deployment
FDD	Full-Deployment Decision
FMS	Foreign Military Sales
FOC	Full Operational Capability
FRP	Full-Rate Production
FY	Fiscal Year
FYDP	Future Years Defense Program
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
Inc	Increment
IOC	Initial Operational Capability
IT	Information Technology
JROC	Joint Requirements Oversight Council
KPP	Key Performance Parameter
KSA	Key System Attribute

LRIP	Low-Rate Initial Production
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MILCON	Military Construction
N/A	Not Applicable
O	Objective
O&M	Operations and Maintenance
O&S	Operating and Support
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
PAUC	Program Acquisition Unit Cost
PB	President's Budget
PE	Program Element
PEO	Program Executive Officer
PM	Program Manager
POE	Program Office Estimate
R&MF	Revolving and Management Funds
RDT&E	Research, Development, Test, and Evaluation
SAR	Selected Acquisition Report
SCP	Service Cost Position
T	Threshold
TBD	To Be Determined
TY	Then Year
U.S.	United States
U.S.C	United States Code
UCR	Unit Cost Reporting
USD(A&S)	Under Secretary of Defense (Acquisition and Sustainment)

(U) Program Description

Full Name
Handheld, Manpack, and Small Form Fit Radios

PNO
385

Lead Component
Department of the Army

Joint Program
Yes

Adaptive Acquisition Pathway
Major Capability Acquisition

Acquisition Category
IC

Acquisition Status
Active Acquisition

Short Name
HMS

Decision Authority
Component Acquisition Executive

Program Executive Office
PEO Command Control Communications Tactical (C3T)

Supporting Components
Department of the Navy, Department of the Air Force

Acquisition Type
Major Defense Acquisition Program

Acquired Systems
HMS Radios

Subprograms

Full Name	Short Name	Acquisition Status	In Report?	Acquired Systems
Handheld, Manpack, and Small-Form Fit Radios	HMS	Active Acquisition	Yes	HMS Radios

Mission

The Handheld, Manpack, and Small Form Fit (HMS) radio program is a single Acquisition Category IC program encompassing Handheld (HH) and Manpack (MP) radios. HMS provides voice and data communication 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 dismounted personnel and platforms. HMS radio systems are software reprogrammable, networkable, multi-mode systems capable of simultaneous voice and data communication. HMS radios will support a variety of other platforms, including tactical End User Devices (EUD) voice and data needs. HMS provides tailorable and scalable, software-defined radio systems meeting U.S. Army, Air Force, Navy, Marine Corps and Special Operations Command communications needs. HMS systems are capable of providing both Classified and Unclassified communications. The radios provide the Single Channel Ground and Airborne Radio System (SINCGARS) legacy waveform for Classified and Unclassified communications. They also provide advanced waveforms (e.g. TrellisWare TSM) that provide Secure but Unclassified (SBU) communications. The MP radio provides the Mobile User Objective System (MUOS) waveform for Tactical Satellite communications. The HMS program is currently in the process of conducting significant testing, including Laboratory and Field Based Risk Reduction events culminating in an Operational Test event.

The HH radio suite consists of one-channel Rifleman Radio (RR), two-channel Leader Radio (LR) and Single-Channel Data Radio (in support of Integrated Visual Augmentation System (IVAS)). The RR is a handheld radio that connects Soldiers at the lowest echelon of the Army network. It is a sensitive but unclassified radio system capable of voice and data communications. The LR is a multiband, two-channel handheld radio to be used at the team, squad, and platoon level. The LR will simultaneously support SINCGARS voice interoperability and other advanced networking waveform communications, in one radio with both handheld and mounted configurations. The Single-Channel Data Radio is a secure, two-way tactical radio that provides intra-squad data communications and is considered a support item of the IVAS.

The MP Radio is a National Security Agency (NSA)-certified Type 1 radio used for transmission of up to TOP SECRET information. MP is capable of providing two simultaneous channels of secure voice and data communication using SINCGARS, Demand Assigned Multiple Access Satellite Communication, MUOS waveform, and other advanced 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. The MP provides networking waveforms connectivity, Networked LOS and BLOS voice and data communications, with both vehicular and man-packable configurations.

(U) Responsible Office**Program Executive Officer**

PEO Command Control Communications
Tactical (C3T)

Mr. Mark Kitz

mark.c.kitz.civ@army.mil (primary)

(443) 395-8257 (commercial)

Program Manager

Product Manager Handheld, Manpack, and
Small-form Fit

Dennis Teefy

dennis.a.teefy.civ@army.mil (primary)

(443) 861-1993 (commercial)

(U) Executive Summary

Program Highlights Since Last Report

On March 17, 2023, Electronic Proving Ground (EPG) completed record testing for the Integrated Visual Augmentation System (IVAS) Single-Channel Data Radio (SCDR) Characterization Test.

On May 23, 2023, HMS awarded a delivery order for a total of 7,226 Manpack Radios (4,299 L3Harris; 2,927 Collins).

On July 20, 2023, HMS awarded a delivery order for a total of 3,983 Leader Radios (2,390 L3Harris; 1,593 Thales).

On July 28, 2023, HMS completed the Performance Verification Test 4 (PVT4).

On August 30, 2023, HMS exercised delivery order options for Manpack Radio (390 L3Harris).

On September 26, 2023, HMS awarded a supplemental delivery order for a total of 680 Leader Radios (408 L3Harris; 272 Thales).

On September 26, 2023, HMS awarded a supplemental delivery order for a total of 88 Manpack Radios (44 L3Harris; 44 Collins).

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

(U) History of Significant Developments Since Program Inception

Date	Description
December 2023	Per PEO C3T, there have been no significant developments in the HMS program since 2021.
December 2021	On December 16, 2021, the Acquisition Program Baseline was approved.
August 2021	On August 19, 2021, LR and MP received approval for Full Rate Production (FRP).
January 2021	IOT&E was successfully completed on January 22, 2021 for the GEN 2 MP and LR.
December 2020	On December 14, 2020, an ADM authorized the procurement of 10,000 Single-Channel Data Radios (SCDR).
April 2020	An April 2, 2020 ADM authorized an additional Low Rate Initial Production (LRIP) procurement of up to 4,860 LR and 3,440 GEN 2 MP.
December 2019	As a result of the annual Configuration Steering Board, the HMS program Basis of Issue (BOI) was adjusted to support Army Network Modernization priorities. HMS was directed to remove remaining legacy radio variants from the program baseline and incorporate the Single-Channel Data Radio in support of the Integrated Visual Augmentation System (IVAS) into the program baseline.
June 2019	A June 3, 2019 Acquisition Decision Memorandum (ADM) authorized an additional LRIP procurement of up to 2,004 LR and 1,720 GEN 2 MP.
September 2018	Leader Radio capability on-ramped to the existing Handheld Radio Production Contracts - September 18, 2018
September 2018	A September 6, 2018 ADM authorized an LRIP procurement of up to 3,800 LR.
April 2018	An April 12, 2018 ADM authorized an additional LRIP procurement of up to 2,258 GEN 2 MP.
August 2017	In August 2017, in accordance with the approved May 2014 Acquisition Strategy, the program office procured an additional 202 GEN 2 MP (101 per vendor) - the third vendor for GEN 2 MP was terminated for convenience.
May 2017	Leader Radio Request for Proposal and Manpack Radio test asset delivery order were

Date	Description
	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.
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	On July 10, 2018, HMS utilized Other Transactional Agreements to procure 296 LR (148 per vendor) in accordance with the Acquisition Strategy Addendum signed March 8, 2017.
March 2017	ACAT IC Delegation received March 17, 2017 naming the Secretary of the Army as the Milestone Decision Authority (MDA).
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.
June 2016	Follow-on Operational Test and Evaluation (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.
February 2016	Manpack Radio Production Contract Awards - February 26, 2016
April 2015	Handheld Radio Production Contract Awards - April 29, 2015; 200 LRIP RR were procured during award.
August 2014	IOC: LRIP Manpack Radio schedule event completed.
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.
May 2014	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).
December 2013	A December 12, 2013 ADM authorized LRIP procurement of an additional 1,500 GEN 1 MP.
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.
October 2012	An October 11, 2012 ADM authorized an additional LRIP procurement of up to 3,726 GEN 1 MP.
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.
July 2012	A follow-on ADM signed July 11, 2012 approved the procurement of an additional LRIP of 13,077 GEN 1 RR.
May 2012	Follow-on Operational Test and Evaluation (FOT&E): Manpack with Mobile User Objective System (MUOS) schedule event completed.
November 2011	Initial Operational Test and Evaluation: LRIP Rifleman Radio schedule event completed.
June 2011	Milestone C Decision - JTRS HMS Milestone Decision Review was held in May 2011 and final approval received in June.
June 2011	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 GEN 1 RR (AN/PRC-154) and 100 GEN 1 MP radios (AN/PRC-155).

Date	Description
November 2005	A Defense Acquisition Board (DAB) re-planning meeting was held to restructure the JTRS Enterprise. JTRS Cluster 5 was renamed JTRS HMS.
February 2005	All JTRS programs were re-aligned under the Joint PEO (JPEO) JTRS.
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.
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).

Handheld, Manpack, and Small-Form Fit Radios Subprogram

No Data

(U) Schedule**Handheld, Manpack, and Small-Form Fit Radios Subprogram****(U) Schedule Events**

Events		Production APB (Milestone) 10/20/2011 Objective	FRP APB (Current) 12/16/2021 Objective / Threshold		Current Estimate 12/31/2023	Actual
Milestone B Decision	MS B	Apr 2004	May 2004	May 2004	-	11 May 2004
Contract Award	Other	Jul 2004	Jul 2004	Jul 2004	-	13 Jul 2004
Milestone C Decision: HMS	MS C	May 2011	Jun 2011	Jun 2011	-	17 Jun 2011
IOT&E: AN/PRC-154 Rifleman Radio	IOT&E	Nov 2011	Nov 2011	Nov 2011	-	25 Nov 2011
MOT&E: AN/PRC-155 Manpack	Other	May 2012	May 2012	May 2012	-	31 May 2012
IOC: AN/PRC-154 Rifleman Radio	IOC	Jan 2012	Jul 2012	Jul 2012	-	31 Jul 2012
IPR: AN/PRC-155 Manpack	Other	Feb 2012	Jul 2012	Jul 2012	-	31 Jul 2012
IOC: AN/PRC-155 Manpack	IOC	Mar 2013	Aug 2014	Aug 2014	-	31 Aug 2014
FOT&E: AN/PRC-155 Manpack with MUOS	Other	Jun 2013	Jun 2016	Jun 2016	-	30 Jun 2016
Fielding: AN/PRC-155 Manpack with MUOS	FOC	Jun 2014	Jun 2019	Jun 2019	-	26 Jun 2019
HMS IOT&E: Generation 2 Products	IOT&E	-	Jan 2021	Jan 2021	-	22 Jan 2021
FRP Decision Review: Generation 2 Manpack Radio	FRP Decision	-	Aug 2021	Aug 2021	-	19 Aug 2021
FRP Decision Review: Leader Radio	FRP Decision	-	Aug 2021	Aug 2021	-	19 Aug 2021

Notes

The Single-Channel Data Radios (SCDR) reported in this SAR support the Integrated Visual Augmentation System (IVAS) which is a Middle Tier of Acquisition (MTA) Rapid Fielding effort. At such time that IVAS transitions to a major capability acquisition pathway the SCDR will meet all schedule events in accordance with the established IVAS baseline.

Schedule Baseline Deviation Explanation

None

(U) Current Significant Schedule Risks and Risks Identified at Milestones/Decisions

Event	Date	Description
Current	12/31/2023	Porting of waveform capability Single Channel Ground and Airborne Radio System (SINCGARS) Ciphertext 2 (CT2) by the end of October 2024 .
FRP	12/31/2020	FRP contract award by end of 4QFY21 in order to meet FY22 fielding requirements
MS C	6/17/2011	Mobile User Objective System (MUOS) requirements and availability
MS C	6/17/2011	Manpack software and National Security Agency corrective action issues
MS B	5/11/2004	Size, Weight, and Power Issues
MS B	5/11/2004	Aggressive schedule for software development and component system testing
MS B	5/11/2004	Waveform Availability

(U) Performance**(U) Handheld, Manpack, and Small-Form Fit Radios Subprogram****(U) Performance Attributes**

Voice and Data Communication: Generation 2 Manpack		KPP
Current Estimate 12/31/2023		Meets Objective
Demonstrated Performance 1/22/2021		Objective verified by third party test agency at Performance Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current) 12/16/2021	Objective	Must provide networked voice and data exchange (i.e., mission command information) to support tactical actions while dispersed across the battlefield.
	Threshold	Must provide networked voice and data exchange (i.e., mission command information) to support tactical actions while dispersed across the battlefield.
Production APB (Milestone) 10/20/2011	Objective	-
Net Ready Capability: Generation 2 Manpack		KPP
Current Estimate 12/31/2023		Meets Threshold
Demonstrated Performance 1/22/2021		Threshold verified by third party test agency at Performance Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current)	Objective	Must fully support execution of all operational activities and information exchanges identified in the DOD Enterprise Architecture and solution architectures based on the integrated DOD Architecture Framework (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 Enterprise Architecture (DOD IEA), excepting tactical and non-IP communications, 3) Compliant with GIG Technical Guidance to include the Technical View 1 (TV-1) and implementation guidance of GIG Enterprise Service Profiles (GESPs) necessary to meet all operational requirements specified in the DOD Enterprise Architecture and solution architecture views, 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an interim Authority to Operate (IATO) or Authorization to Operate (ATO) by the Designated

12/16/2021		Accrediting Authority (DAA), and 5) Supportability requirements to include Selective Availability Anti-Spoofing Module (SAASM), Spectrum and JTRS requirements.
	Threshold	Must fully support execution of joint critical operational activities and information exchanges identified in the DOD Enterprise Architecture and solution architectures based on the integrated DOD Architecture Framework (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 Enterprise Architecture (DOD IEA), excepting tactical and non-IP communications, 3) Compliant with GIG Technical Guidance to include the Technical View 1 (TV-1) and implementation guidance of GIG Enterprise Service Profiles (GESPs) necessary to meet all operational requirements specified in the DOD Enterprise Architecture and solution architecture views, 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an interim Authority to Operate (IATO) or Authorization to Operate (ATO) by the Designated Accrediting Authority (DAA), and 5) Supportability requirements to include Selective Availability Anti-Spoofing Module (SAASM), Spectrum and JTRS requirements.
Production APB (Milestone) 10/20/2011	Objective	-
Sustainment (Operational Availability (Ao)): Generation 2 Manpack		KPP
Current Estimate 12/31/2023		Meets Threshold
Demonstrated Performance 1/22/2021		Threshold verified by third party test agency at Performance Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current) 12/16/2021	Objective	0.99 (Channel)
	Threshold	0.96 (Channel)
Production APB (Milestone) 10/20/2011	Objective	-
Multi-Channel Operations: Generation 2 Manpack		KPP
Current Estimate 12/31/2023		Meets Objective
Demonstrated Performance 1/22/2021		Objective verified by third party test agency at Performance Verification Test (PVT) and Initial

		Operational Test and Evaluation (IOT&E).
FRP APB (Current) 12/16/2021	Objective	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. The MP must also allow simultaneous operations using KPP waveform combinations identified in Table EE-3. In addition the MP must have the ability to route and retransmit waveforms listed as Objective in Table EE-4.
	Threshold	To enable Warfighters to conduct combat missions across the battlefield, any channel of the MP must have ability to operate the KPP waveforms listed in Table EE-2. The MP must also allow simultaneous operations using KPP waveform combinations listed in Table EE-3. In addition the MP must have the ability to route and retransmit KPP waveforms listed in Table EE-4.
Production APB (Milestone) 10/20/2011	Objective	-
Voice and Data Communications: Leader Radio		KPP
Current Estimate 12/31/2023		Meets Objective
Demonstrated Performance 1/22/2021		Objective verified by third party test agency at Performance Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current) 12/16/2021	Objective	The Leader Radio shall provide SECRET voice and data transport communications (C2 and SA) (e.g. Nett Warrior, Fires Warrior, etc.) to Platoon, Squad and Team Leaders using ANWf; and provide SECRET voice and data (e.g. digital fires messaging) communication by SINCGARS to communicate with combat support and enablers.
	Threshold	The Leader Radio shall provide secure but unclassified (SBU) (up to SECRET) voice and data transport communications (C2 and SA) (e.g. Nett Warrior, Fires Warrior, etc) to Platoon, Squad and Team Leaders using ANWf; and provide secure (up to SECRET) voice and data (e.g. digital fires messaging) communication by SINCGARS to communicate with combat support and enablers.
Production APB (Milestone) 10/20/2011	Objective	-
Net-Ready Capability: Leader Radio		KPP
Current Estimate 12/31/2023		Meets Threshold
Demonstrated Performance 1/22/2021		Threshold verified by third party test agency at Performance Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current)	Objective	The Leader Radio shall meet the three principal attributes required for any IT system: Support Military Operations;

		able to receive new COMSEC keys by both Over The Air Rekey (OTAR) and a physically connected device (Threshold). The Leader Radio must survive the effects of chemical, biological and radiological (CBR) and relevant decontamination. The Leader Radio must be able to conduct its mission while contaminated for 72 hours without failure due to contamination. (RATIONALE: Leaders must have secure reliable communications in order to maintain operational security and situational awareness on the battlefield).
Production APB (Milestone) 10/20/2011	Objective	-
Sustainment (Operational Availability (Ao)): Leader Radio		KPP
Current Estimate 12/31/2023		Meets Threshold
Demonstrated Performance 1/22/2021		Threshold verified by third party test agency at Performance Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E). Follow-on testing utilized for continued reliability growth.
FRP APB (Current) 12/16/2021	Objective	Dismounted: 0.99 (Channel) Mounted: 0.97 (Channel)
	Threshold	Dismounted: 0.96 (Channel) Mounted: 0.94 (Channel)
Production APB (Milestone) 10/20/2011	Objective	-
Sustainment (Materiel Availability (Ao)): Leader Radio		KPP
Current Estimate 12/31/2023		Meets Threshold
Demonstrated Performance 1/22/2021		Threshold verified by third party test agency at Performance Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E). Follow-on testing utilized for continued reliability growth.
FRP APB (Current) 12/16/2021	Objective	0.96
	Threshold	0.75
Production APB (Milestone) 10/20/2011	Objective	-
Energy Capability: Leader Radio		KPP
Current Estimate 12/31/2023		Meets Threshold
Demonstrated Performance 1/22/2021		Threshold verified by third party test agency at Performance Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current)	Objective	Dismounted battery life: 24 hours Mounted power draw: NTE 15 amps

12/16/2021	Threshold	Dismounted battery life: 8 hours Mounted power draw: NTE 15 amps
Production APB (Milestone) 10/20/2011	Objective	-
Channel and Simultaneous operation Leader Radio		KPP
Current Estimate 12/31/2023		Meets Objective
Demonstrated Performance 1/22/2021		Objective verified by third party test agency at Performance Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current) 12/16/2021	Objective	The Leader Radio shall support two separate channels simultaneously. The Leader Radio must have the ability to route and retransmission KPP waveforms listed in Table 5.2 and described in Table 5.3. The Leader Radio shall also have the capability to operate ANWf or SINCGARS waveforms on either channel. The Leader Radio shall also have the capability to support additional waveforms listed in Table 7.1.
	Threshold	The Leader Radio shall support two separate channels simultaneously. One channel shall support the SINCGARS voice and data (e.g. digital fires messaging) modes and the second channel shall support ANWf voice and data operational modes.
Production APB (Milestone) 10/20/2011	Objective	-
Intra-Squad Communication: AN/PRC-154 Rifleman Radio		KPP
Current Estimate 12/31/2023		Voice
Demonstrated Performance 11/30/2011		Objective/Threshold verified by third party test agency Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current) 12/16/2021	Objective	Voice
	Threshold	(T=O) Voice
Production APB (Milestone) 10/20/2011	Objective	Voice
Net Ready (NR) Capability: AN/PRC-154 Rifleman Radio		KPP
Current Estimate 12/31/2023		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 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.
Demonstrated Performance 11/30/2011		Objective/Threshold verified by third party test agency Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current)	Objective	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.
	12/16/2021	Threshold
Production APB (Milestone)	Objective	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.
10/20/2011		
Soldier Location: AN/PRC-154 Rifleman Radio		KPP
Current Estimate 12/31/2023	Automatic PLI	

Demonstrated Performance 11/30/2011		Objective/Threshold verified by third party test agency Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current) 12/16/2021	Objective	Automatic PLI
	Threshold	(T=0) Automatic PLI
Production APB (Milestone) 10/20/2011	Objective	Automatic PLI
Sustainment (Operational Availability (Ao)): AN/PRC-154 Rifleman Radio		KPP
Current Estimate 12/31/2023		0.999 (Channel)
Demonstrated Performance 11/30/2011		Objective verified by third party test agency Initial Operational Test and Evaluation (IOT&E).
FRP APB (Current) 12/16/2021	Objective	0.99 (Channel)
	Threshold	0.96 (Channel)
Production APB (Milestone) 10/20/2011	Objective	0.99 (Channel)
Voice and Data Communication: AN/PRC-155 Manpack		KPP
Current Estimate 12/31/2023		-
Demonstrated Performance -		-
FRP APB (Current) 12/16/2021	Objective	DELETED
	Threshold	DELETED
Production APB (Milestone) 10/20/2011	Objective	
Net Ready Capability: AN/PRC-155 Manpack		KPP
Current Estimate 12/31/2023		-
Demonstrated Performance -		-
FRP APB (Current) 12/16/2021	Objective	DELETED
	Threshold	DELETED
Production APB (Milestone) 10/20/2011	Objective	

Sustainment (Operational Availability (Ao)): AN/PRC-155 Manpack		KPP
Current Estimate 12/31/2023		-
Demonstrated Performance -		-
FRP APB (Current) 12/16/2021	Objective	DELETED
	Threshold	DELETED
Production APB (Milestone) 10/20/2011	Objective	
Multi-Channel Operations: AN/PRC-155 Manpack		KPP
Current Estimate 12/31/2023		-
Demonstrated Performance -		-
FRP APB (Current) 12/16/2021	Objective	DELETED
	Threshold	DELETED
Production APB (Milestone) 10/20/2011	Objective	
One Channel (Additional Performance Attribute - APA)**		APA
Current Estimate 12/31/2023		Meets Threshold
Demonstrated Performance 6/30/2022		SCDR meets threshold demonstrated at PM IVAS Operational Demonstration in June 2022. IVAS radios provided data across a Company network; ITN connectivity slated for IVAS 1.1.
FRP APB (Current)	Objective	One Channel (APA) - Operations Specific Single Channel Radio. The Leaders Radio shall provide a one channel

12/16/2021		capability including platform embedded, attached modular, or handheld variant(s). Size, weight, power, communication range and classification attributes shall conform to applicable platform specifications and mission needs. One Channel variant shall comply with all Leader Radio KPPs applicable to single channel operations not specified above.
	Threshold	One Channel (APA) - Operations Specific Single Channel Radio. The Leaders Radio shall provide a one channel capability including platform embedded, attached modular, or handheld variant(s). Size, weight, power, communication range and classification attributes shall conform to applicable platform specifications and mission needs. One Channel variant shall comply with all Leader Radio KPPs applicable to single channel operations not specified above.
Production APB (Milestone) 10/20/2011	Objective	-

(U) Requirement Source:

Sponsor(s): United States Army

1. Capability Production Document, *Rifleman Radio CPD Increment 2, Revision 2, Version 2_2*
Validated By: Joint Requirements Oversight Council, August 12, 2021
2. Capability Production Document, *Mounted and Dismounted Operations Manpack, Version 4_4, Revision 1*
Validated By: Joint Requirements Oversight Council, February 28, 2020

Notes

ANWf - Advanced Networking Waveform
ATO - Approval to Operate
CBR - Chemical, Biological and Radiological
COMSEC - Communications Security
DoDAF - Department of Defense Architecture Framework
EW - Electronic Warfare
GESP - Global Information Grid Enterprise Service Profile
GIG - Global Information Grid
IATO - Interim Approval to Operate
IEA - Information Environment Architecture
JCIDS - Joint Capabilities Integration and Development System
JTRS - Joint Tactical Radio System
KPP - Key Performance Parameters
LR - Leader Radio
MoE - Measures of Effectiveness
MoP - Measures of Performance
MP - Manpack Radio
SAASM - Selective Availability Anti-Spoofing Module

SINGARS - Single Channel Ground and Airborne Radio System

Performance Deviation Explanation

None

(U) Acquisition Budget Estimate**(U) Handheld, Manpack, and Small-Form Fit Radios Subprogram****(U) Total Acquisition Estimates and Quantities**

Category (\$M) Base Year: 2011	Production APB (Milestone) 10/20/2011 CY\$ obs Objective	FRP APB (Current) 12/16/2021 CY\$ obs Objective / Threshold		Current Estimate PB 2025 CY\$ obs / TY\$ obs	
		RDT&E	1,254.7	1,218.3	1,339.9
Procurement	6,987.9	7,778.0	8,555.8	8,031.5	11,318.5
MILCON	0.0	0.0	0.0	0.0	0.0
O&M	0.0	76.6	81.7	61.2	89.6
R&MF	-	0.0	0.0	0.0	0.0
Total Acquisition	8,242.6	9,072.9	-	9,327.9	12,643.7
Program Acquisition Unit Cost	0.030	0.035	0.039	0.036	0.049
Average Procurement Unit Cost	0.026	0.030	0.034	0.031	0.044
Program End-Item Quantity					
Development	582	833		833	
Procurement	270369	255162		255162	
O&M-Acquired	-	0		-	

Budget Notes

Current APB cost baseline is from the approved FRP Army Cost Position dated July 20, 2021. Current estimate based on most recent HMS cost model, "SAR Data Review-Cost Calcs 20240424" using FY23 inflation indices. The SAR funding position is based on PB25 Lock (AF3.3) dated 14 Mar 2024 and adjustments from the 2024 Department of Defense Appropriations Act.

Quantity Notes

FRP APB

Total Quantity* 255,162

Single-Channel Data Radio 68,000 (APO)

Rifleman Radio 21,579

Leader Radio 85,964

Manpack 79,569

Navy Manpack Systems 50

*Unit of measure is an HMS radio, which includes multiple variants (Handheld Radio, Manpack, and Single-Channel Data Radio).

The cost, quantities, and subsequent APUC breakout reflects the current program of record.

Cost Baseline Deviation Explanation

None

(U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)	
1	A revised FRP APB was approved 16 Dec 2021 incorporating the 20 Jul 2021 Army Cost Position. The most significant cost driver in the HMS cost estimate remains the recurring manufacturing cost for radios. This recurring manufacturing cost estimate assumes high component design maturity and continued unit cost reductions resulting from annual competitive delivery orders.
Current Baseline Risks (12/16/2021)	
None	
Original Baseline Risks (5/19/2004)	
The Original Estimate represents the program's Milestone B cost position.	

(U) Unit Costs**(U) Handheld, Manpack, and Small-Form Fit Radios Subprogram****(U) Current Estimate Compared with Current Baseline**

Category (CY\$M) Base Year: 2011	Current Baseline 12/16/2021	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	9,072.9	9,327.9	
Program Quantity	255,995	255,995	
PAUC	0.035	0.036	2.81%
Average Procurement Unit Cost			
Procurement Cost	7,778.0	8,031.5	
Procurement Quantity	255,162	255,162	
APUC	0.030	0.031	3.26%

(U) Current Estimate Compared with Original Baseline

Category (CY\$M) Base Year: 2004	Original Baseline 05/19/2004	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	8,569.0	8,019.5	
Program Quantity	329,574	255,995	
PAUC	0.026	0.031	19.23%
Average Procurement Unit Cost			
Procurement Cost	8,104.0	6,905.1	
Procurement Quantity	328,514	255,162	
APUC	0.025	0.027	8.00%

The Current Estimate's constant-year dollars have been converted from Base Year 2011 to Base Year 2004 using the National Defense Budget Estimates for FY 2004 (Green Book).

Notes

The SAR funding position is based on PB25 Lock (AF3.3) dated 14 Mar 2024 and adjustments from the 2024 Department of Defense Appropriations Act.

(U) Life-Cycle Costs**(U) Handheld, Manpack, and Small-Form Fit Radios Subprogram****(U) Operating and Support and Disposal Cost Estimates Compared with Baseline**

Category (\$M) Base Year: 2011	Production APB (Milestone) 10/20/2011 CY\$ obs Objective	FRP APB (Current) 12/16/2021 CY\$ obs Objective / Threshold		Current Estimate CY\$ obs / TY\$ obs	
Total O&S	14,710.4	1,399.9	1,539.9	1,395.7	2,498.7
Total Disposal	-	57.0	-	57.0	109.9

(U) Current Cost Estimate Sources**Operating and Support Cost**

Type: Component Cost Position

Approved by: D, CAPE, July 20, 2021

Disposal/Demilitarization Cost

Type: Component Cost Position

Approved by: Director, Cost Assessment & Program Evaluation, July 20, 2021

Operating and Support Baseline Deviation Explanation

None

Cost Notes

None

(U) Operating and Support Variance with Prior Estimate

(CY\$M) Base Year: 2011	Estimate	
Prior Estimate (12/31/2022)	1,267.4	
Current Estimate	1,395.7	
Category		
	Variance	Explanation
Unit-Level Manpower	-0.2	Updated inflation and escalation indexes.
Unit Operations	134.1	Increase in projected number of battery replacements for Leader Radio.
Maintenance	-0.7	Updated inflation and escalation indexes.

(CY\$M) Base Year: 2011	Estimate	
Sustaining Support	0.2	Updated inflation and escalation indexes.
Continuing System Improvements	-5.1	Reduction in Post Production Software Support.
Other	-	
Not Categorized	0.0	

(U) Operating and Support Cost Element Structure Estimates by Acquired System

(CY\$M) Base Year: 2011							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
AN/PRC-154-A	24.4	277.3	162.0	11.3	87.4	-	562.4
AN/PRC-155	34.3	105.9	594.9	10.8	81.2	-	827.1
HMS Radios	0.1	-	6.1	-	-	-	6.2
Program	58.8	383.2	763.0	22.1	168.6	-	1,395.7

(U) Annual Operating and Support Costs per Unit Compared with Antecedent System

No Data

(U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
AN/PRC-154-A	85,964	15.0	Radio (R/T)	2012 - 2037
AN/PRC-155	73,938	15.0	Radio (R/T)	2014 - 2039
HMS Radios	68,000	10.0	Radio (R/T)	2012 - 2039

Additional O&S Estimate Assumptions

None

Antecedent Estimate Assumptions

None

O&S Annual Cost Calculation Memo

None

(U) Technologies and Systems Engineering

(U) Handheld, Manpack, and Small-Form Fit Radios Subprogram

(U) Current Significant Technical Risks and Risks Identified at Milestones/Decisions

Event	Date	Description
Current	12/31/2023	MUOS cryptographic maturity to meet future cease key date requirements
MS C	6/17/2011	1) Mobile User Objective System (MUOS) requirements and availability 2) Manpack software and National Security Agency corrective action issues
MS B	5/11/2004	1) Waveform Availability 2) Size, Weight, and Power Issues 3) Aggressive schedule for software development and component system testing

(U) Performing Activities and Contracts

(U) External Government Activities

None

(U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
Collins Aerospace - Generation 2 Manpack Radios	W15P7T-16-D-0003	Collins Aerospace	Production
Harris - Handheld Radios	W15P7T-15-D-0016	Harris Corporation	Production
Harris Generation 2 Manpack Radio	W15P7T-16-D-0002	Harris Corporation	Production
Microsoft - Single Channel Data Radios	W91CRB-21-9-P002	Microsoft Corporation	Production
Thales - Handheld Radios	W15P7T-15-D-0015	Thales Defense & Security, Inc.	Production

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	W15P7T-16-D-0003	Order Number:	-
Contract Title:	Collins Aerospace - Generation 2 Manpack Radios	Strategy:	FAR 16.5: Indefinite Delivery Definite Quantity
CAGE:	0NYT5 - Collins Aerospace	Contracting Office:	ACC-APG
City, State/Province:	Cedar Rapids, IA		
Effort Number:	-	Supported Phase:	Production
Type:	Firm-Fixed-Price	Award Date:	February 26, 2016
Latest Modification Date:	November 14, 2023	Definitization Date:	February 26, 2016
Latest Modification No.:	W15P7T22F0057	Work Start Date:	March 21, 2016
Technical Data Rights:	-		
Notes:	None		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
4.3 -	751.6 -	751.6 751.6	-	11,191	7,152

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	W15P7T-15-D-0016	Order Number:	-
Contract Title:	Harris - Handheld Radios	Strategy:	FAR 16.5: Indefinite Delivery Definite Quantity
CAGE:	14304 - Harris Corporation	Contracting Office:	ACC-APG
City, State/Province:	Rochester, NY		

Effort Number:	-	Supported Phase:	Production
Type:	Firm-Fixed-Price	Award Date:	April 29, 2015
Latest Modification Date:	December 26, 2023	Definitization Date:	April 29, 2015
Latest Modification No.:	W15P7T22F0156	Work Start Date:	April 29, 2015
Technical Data Rights:	-		
Notes:	None		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
2.0 -	390.9 -	390.9 390.9	100	13,818	11,947

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	W15P7T-16-D-0002	Order Number:	-
Contract Title:	Harris Generation 2 Manpack Radio	Strategy:	FAR 16.5: Indefinite Delivery Definite Quantity
CAGE:	14304 - Harris Corporation	Contracting Office:	ACC-APG
City, State/Province:	Rochester, NY		

Effort Number:	-	Supported Phase:	Production
Type:	Firm-Fixed-Price	Award Date:	February 26, 2016
Latest Modification Date:	November 15, 2023	Definitization Date:	February 26, 2016
Latest Modification No.:	W15P7T22F0056	Work Start Date:	March 21, 2016
Technical Data Rights:	-		
Notes:	None		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
1.4 -	812.7 -	812.7 812.7	-	14,800	10,057

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	W91CRB-21-9-P002	Order Number:	-
Contract Title:	Microsoft - Single Channel Data Radios	Strategy:	FAR 16.5: Indefinite Delivery Definite Quantity
CAGE:	60128 - Microsoft Corporation	Contracting Office:	ACC-APG
City, State/Province:	Redmond, WA		

Effort Number:	-	Supported Phase:	Production
Type:	Other Transaction Agreement	Award Date:	March 25, 2021
Latest Modification Date:	December 20, 2022	Definitization Date:	-
Latest Modification No.:	-	Work Start Date:	-
Technical Data Rights:	-		
Notes:	None		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
15.0 -	30.8 -	30.8 30.8	5,000	10,000	-

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	W15P7T-15-D-0015	Order Number:	-
Contract Title:	Thales - Handheld Radios	Strategy:	FAR 16.5: Indefinite Delivery Indefinite Quantity
CAGE:	23386 - Thales Defense & Security, Inc.	Contracting Office:	ACC-APG
City, State/Province:	Clarksburg, MD		
Effort Number:	-	Supported Phase:	Production
Type:	Firm-Fixed-Price	Award Date:	April 29, 2015
Latest Modification Date:	November 22, 2023	Definitization Date:	April 29, 2015
Latest Modification No.:	W15P7T22F0155	Work Start Date:	April 29, 2015
Technical Data Rights:	-		
Notes:	None		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
2.3 -	- -	395.2 395.2	100	12,687	8,674

(U) Handheld, Manpack, and Small-Form Fit Radios Subprogram

No Data

(U) Production**(U) Handheld, Manpack, and Small-Form Fit Radios Subprogram****(U) Low-Rate Initial Production**

	Original LRIP Determination	Current LRIP Determination
Total LRIP Quantity	6,350	45,638
Date	6/17/2017	4/2/2020
Reference	Milestone C ADM	LRIP ADM, 2014 Acquisition Strategy (AS), 2017 AS addendum, 2018 ADMs, 2019 ADM, & 2020 ADM
LRIP Period	FY 2011 - 2012	FY 2012 - 2020
Total Procurement Quantity	270,369	255,162
LRIP Percentage of Total	2.3%	17.9%

Rationale if LRIP Quantity Exceeds 10% of Total Procurement Quantity (Current Determination)

The Current Total LRIP Quantity is more than 10% of the total production quantity. However, Leader Radio (LR) and Generation (GEN) 2 Manpack (MP) LRIPs only account for 6.3% of the HMS Army Acquisition Objective (AAO).

LRIP Notes

None

(U) Deliveries and Expenditures

(U) Handheld, Manpack, and Small-Form Fit Radios Subprogram

(U) Acquisition Funding

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	32	21	65.6%
Appropriations (TY, \$M)	12,643.7	6,080.4	48.1%
Expenditures (TY, \$M)	12,643.7	5,403.3	42.7%

(U) End Items Delivered

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Development	833			
HMS Radios		833	833	
Procurement	255,162			
HMS Radios		77,981	70,602	
Total	255,995	78,814	71,435	27.9%

Notes

None

(U) International Program Aspects

General Memo

International Security Cooperation Division at PEO C3T Headquarters tracks all requests and requirements for FMS cases; there are no FMS or DCS cases for the HMS program. Some Radio Vendors are delivering commercial variants of the LR and MP radios to coalition partners; however, the HMS radio products are not approved for Foreign Military Sales (FMS).

Some Radio Vendors are delivering commercial variants of the Leader and Manpack radios to coalition partners; however, the Handheld, Manpack, and Small Form Fit (HMS) radio products are not approved for FMS. 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 US 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 testing and satisfies 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 National Security Agency (NSA); Tactical Radios with Waveforms (WF) installed must be certified by NSA; Tactical Radio WFs, as individual products, are not authorized for sale or export (sharing of the Link 16 WF with the Multifunctional Information Distribution System (MIDS) participants per the MIDS Memorandum of Understanding is the only current exception to this rule); HMS military 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.

Exportability and Business Issues

N/A

Is design for international exportability planned?	No	Industry/Partner Exportability Cost-Sharing?	No
If not, has the MDA approved an exportability waiver for a U.S.-only design?	Not Applicable		

Program Protection: Technology Security and Foreign Disclosure Issues

N/A

(U) Agreements

No International Agreements have been defined for HMS

(U) Handheld, Manpack, and Small-Form Fit Radios Subprogram

No Data



UNCLASSIFIED

**Modernized
Selected Acquisition Report
Supplement**

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

FY 2025 President's Budget
As of: December 31, 2023

UNCLASSIFIED

MSAR Supplement Sections

Program Description

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

Nuclear Costs

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

Program Description

Full Name

Handheld, Manpack, and Small Form Fit Radios

Short Name

HMS

PNO

385

Lead Component

Army

AAF Pathway

MCA

Acquisition Type

MDAP

Acquired Systems

Subprograms

Full Name	Short Name	Acquired Systems
Handheld, Manpack, and Small-Form Fit Radios	HMS	HMS Radios

Related Programs

Full Name	PNO	Pathway	Type	ACAT/ BCAT	Acquisition Status	Costs in SAR? Acq O&S	

Program Use of the Adaptive Acquisition Framework

This acquisition is accomplished by a single program in the Major Capability Acquisition Pathway.

Technologies and Systems Engineering

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Major Software Efforts

Title	Status	Fielding Date	Description

Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts

Funding Sources (Acquisition)**Acquisition Funding Notes****Handheld, Manpack, and Small-Form Fit Radios Subprogram**

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	2040A	05	0605042A - Tactical Network Radio Systems (Low-Tier)	0605042A	FA1 - Manpack Radio		
RDT&E	2040A	05	0605042A - Tactical Network Radio Systems (Low-Tier)	0605042A	FA2 - Rifleman Radio (RR)		
RDT&E	2040A	05	0604280A - Joint Tactical Radio	0604280A	162 - Network Enterprise Domain (NED)		
RDT&E	2040A	05	0604280A - Joint Tactical Radio	0604280A	DZ5 - Handheld, Manpack and Small Form Fit (JTRS HM)		
RDT&E	2040A	05	0604805A - Command, Control, Communications Systems - SDD	0604805A	615 - Jtrs-Ground Domain Integration		
RDT&E	2040A	05	0604805A - Command, Control, Communications Systems - SDD	0604805A	61A - Jtrs Cluster 5 Development		
RDT&E	1319N	05	0604280N - Joint Tactical Radio System - Navy (JTRS-Navy)	0604280N	3075 - HMS JTRS		
Procurement	2035A	02	6458B95004 - Handheld Manpack Small Form Fit (HMS)	0604280A	-		
Procurement	2035A	02	6450B90000 - Joint Tactical Radio System	0604280A	-		
Procurement	2035A	03	8825R80501 - Ground Soldier System	0211700A	-		
Procurement	2035A	02	0140KA3500 - Night Vision Devices	0210700A	-		

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
Procurement	1109N	04	4633 - Radio Systems	0206313M	-		
Procurement	1810N	02	3057 - Communications Items Under \$5M	0204163N	-		
Procurement	3080F	03	837100 - Tactical C-E Equipment	0207423F	-		

Funding Sources (Operating and Support)

Note: Budget lines fund activities executed by the Program Office or Sustainment Office.

Operating and Support Funding Notes

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
O&M	2020A	04	435 - Other Service Support	0702806A	-		

Acquisition Estimate and Quantity Summary

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Acquisition Estimates

Category	PB 2025	TY (\$M)	Current Base Year	Original Base Year	Report Fiscal Year
			CY2011 (\$M)	CY2004 (\$M)	CY2024 (\$M)
RDT&E		1,235.6	1,235.1	1,061.9	1,681.8
Procurement		11,318.5	8,031.5	6,905.1	10,936.1
MILCON		-	-	-	-
O&M		89.6	61.2	52.6	83.3
Total Acquisition		12,643.7	9,327.7	8,019.5	12,701.1
PAUC		0.049	0.036	0.031	0.050
APUC		0.044	0.031	0.027	0.043

Acquisition End-Item Quantities

System	PB 2025	Development	Procurement
HMS Radios		833	255,162
Total		833	255,162

Unit Description

Unit of measure is an HMS radio, which includes multiple variants (Handheld Radio, Manpack, and Single-Channel Data Radio).

Current and Future Years Defense Program Summary, TY(\$M)

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	1,190.5	4.3	4.3	3.4	3.5	3.5	3.6	22.4	1,235.6
Procurement	4,193.1	670.5	647.4	652.9	657.9	666.0	670.2	3,160.6	11,318.5
MILCON	-	-	-	-	-	-	-	-	-
O&M	21.0	5.9	6.0	6.1	6.3	6.4	6.5	31.4	89.6
PB 2025 Total	5,404.6	680.7	657.7	662.4	667.7	675.9	680.3	3,214.4	12,643.7

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

2040A - Research, Development, Test & Eval, Army					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2011 (\$M)
Total		391.7	391.7	-	384.9
2004		21.900	21.9	0.879339	24.9
2005		96.100	96.1	0.904732	106.2
2006		124.600	124.6	0.930087	134.0
2007			-	0.952535	-
2008			-	0.970778	-
2009			-	0.983184	-
2010			-	0.998057	-
2011		0.800	0.8	1.017679	0.8
2012		0.100	0.1	1.033712	0.1
2013		-	-	1.051289	-
2014		28.981	29.0	1.071542	27.0
2015		7.590	7.6	1.089532	7.0
2016		4.415	4.4	1.101108	4.0
2017		9.814	9.8	1.124546	8.7
2018		8.739	8.7	1.144896	7.6
2019		4.229	4.2	1.163712	3.6
2020		24.191	24.2	1.201337	20.1
2021		5.994	6.0	1.251881	4.8
2022		4.901	4.9	1.309618	3.7
2023		4.265	4.3	1.361419	3.1
2024		4.318	4.3	1.393666	3.1
2025		4.288	4.3	1.423467	3.0
2026		3.399	3.4	1.453360	2.3
2027		3.499	3.5	1.483881	2.4
2028		3.538	3.5	1.515042	2.3
2029		3.625	3.6	1.546858	2.3
2030		4.473	4.5	1.579342	2.8
2031		4.558	4.6	1.612508	2.8
2032		4.645	4.6	1.646371	2.8
2033		4.732	4.7	1.680945	2.8
2034		4.001	4.0	1.716245	2.3

Annual Acquisition Estimates by Appropriation Account (Aligned to Budget Position: PB 2025)

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

2035A - Other Procurement, Army									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2011 (\$M)
Total	8,363.7	-	468.0	27.6	-	2,455.7	11,315.0	-	8,028.1
2004							-	0.885028	-
2005							-	0.910280	-
2006							-	0.934706	-
2007							-	0.957442	-
2008							-	0.973555	-
2009							-	0.986468	-
2010							-	1.004554	-
2011	33.304		6.915	0.158		3.280	43.7	1.022506	42.7
2012	350.554		31.396	1.536		65.421	448.9	1.038101	432.4
2013	151.710		0.551	-		56.005	208.3	1.058893	196.7
2014	86.735		4.674	-		142.912	234.3	1.076408	217.7
2015	0.425		0.158	-		23.736	24.3	1.092119	22.3
2016	14.807		0.337	-		43.149	58.3	1.107493	52.6
2017	33.832		-	-		111.589	145.4	1.131564	128.5
2018	314.177		9.737	-		84.965	408.9	1.154963	354.0
2019	186.291		52.011	-		56.063	294.4	1.183143	248.8
2020	329.889		45.328	-		92.748	468.0	1.229725	380.5
2021	392.355		17.943	3.084		115.682	529.1	1.290386	410.0
2022	466.642		59.181	4.650		159.167	689.6	1.342709	513.6
2023	474.809		47.597	3.269		110.866	636.5	1.379983	461.3
2024	458.294		64.850	4.777		142.568	670.5	1.410866	475.2
2025	441.366		37.784	4.756		163.466	647.4	1.440728	449.3
2026	453.143		32.111	0.489		167.110	652.9	1.470983	443.8
2027	521.401		25.959	0.489		110.061	657.9	1.501874	438.1
2028	548.080		5.199	0.489		112.232	666.0	1.533413	434.3
2029	553.165		5.305	0.492		111.194	670.2	1.565615	428.0
2030	515.993		5.414	0.305		114.533	636.2	1.598493	398.0
2031	473.633		5.525	0.780		114.244	594.2	1.632061	364.1
2032	512.058		5.638	0.780		118.851	637.3	1.666334	382.5
2033	661.664		2.671	0.780		121.171	786.3	1.701327	462.2
2034	389.380		1.752	0.780		96.884	488.8	1.737055	281.4
2035	-		-	-		17.770	17.8	1.773534	10.0

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1319N - Research, Development, Test & Eval, Navy					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2011 (\$M)
Total		843.9	843.9	-	850.2
2004			-	0.877161	-
2005			-	0.900248	-
2006			-	0.928300	-
2007		132.884	132.9	0.951036	139.7
2008		150.586	150.6	0.968385	155.5
2009		126.625	126.6	0.980819	129.1
2010		177.473	177.5	0.995531	178.3
2011		63.818	63.8	1.019301	62.6
2012		110.580	110.6	1.036206	106.7
2013		81.952	82.0	1.047087	78.3

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1810N - Other Procurement, Navy									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2011 (\$M)
Total	3.5	-	-	-	-	-	3.5	-	3.3
2004							-	0.886334	-
2005							-	0.911288	-
2006							-	0.941484	-
2007							-	0.961978	-
2008							-	0.977611	-
2009							-	0.990499	-
2010							-	1.009643	-
2011							-	1.024406	-
2012	3.471						3.5	1.040705	3.3

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

2020A - Operation & Maintenance, Army					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2011 (\$M)
Total		89.6	89.6	-	61.2
2004			-	0.875879	-
2005			-	0.901424	-
2006			-	0.930385	-
2007			-	0.952331	-
2008			-	0.970552	-
2009			-	0.980420	-
2010			-	0.994701	-
2011			-	1.016307	-
2012			-	1.030833	-
2013			-	1.045069	-
2014			-	1.061558	-
2015			-	1.072163	-
2016			-	1.091349	-
2017			-	1.109727	-
2018		-	-	1.131973	-
2019		3.106	3.1	1.157727	2.7
2020		3.191	3.2	1.189431	2.7
2021		4.137	4.1	1.247614	3.3
2022		4.772	4.8	1.309419	3.6
2023		5.757	5.8	1.356568	4.2
2024		5.892	5.9	1.388583	4.2
2025		6.018	6.0	1.418234	4.2
2026		6.145	6.1	1.448017	4.2
2027		6.274	6.3	1.478425	4.2
2028		6.405	6.4	1.509472	4.2
2029		6.540	6.5	1.541171	4.2
2030		6.677	6.7	1.573536	4.2
2031		6.818	6.8	1.606580	4.2
2032		5.868	5.9	1.640318	3.6
2033		4.876	4.9	1.674765	2.9
2034		4.979	5.0	1.709935	2.9
2035		2.156	2.2	1.745843	1.2

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Handheld, Manpack, and Small-Form Fit Radios Subprogram

2035A - Other Procurement, Army				
fiscal year	HMS Radios			Total
Total	255,112			255,112
Undistributed				-
2006				-
2007				-
2008				-
2009				-
2010				-
2011	5,297			5,297
2012	19,858			19,858
2013	1,500			1,500
2014	100			100
2015	100			100
2016	153			153
2017	202			202
2018	6,354			6,354
2019	3,724			3,724
2020	8,300			8,300
2021	14,851			14,851
2022	17,412			17,412
2023	12,367			12,367
2024	8,971			8,971
2025	12,587			12,587
2026	13,964			13,964
2027	15,795			15,795
2028	15,886			15,886
2029	15,543			15,543
2030	12,825			12,825
2031	16,890			16,890
2032	17,211			17,211
2033	19,562			19,562
2034	15,660			15,660

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Handheld, Manpack, and Small-Form Fit Radios Subprogram

1810N - Other Procurement, Navy				
fiscal year	HMS Radios			Total
Total	50			50
Undistributed				-
2006				-
2007				-
2008				-
2009				-
2010				-
2011				-
2012	50			50

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Handheld, Manpack, and Small-Form Fit Radios Subprogram

2040A - Research, Development, Test & Eval, Army				
fiscal year	HMS Radios			Total
Total	562			562
Undistributed				-
2006	562			562

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Handheld, Manpack, and Small-Form Fit Radios Subprogram

1319N - Research, Development, Test & Eval, Navy				
fiscal year	HMS Radios			Total
Total	271			271
Undistributed				-
2006				-
2007	271			271

Nuclear Costs

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Program's Use of Department of Energy Resources

None

Operational Fielding Plan**Handheld, Manpack, and Small-Form Fit Radios Subprogram****System: HMS Radios****Fielding and Inventory Notes****HMS Radios Fielding Plan and Inventory**

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					51,661
2024	1,038	37,569		26,956	63,312
2025	261	8,710		-	72,283
2026	366	12,221	86	-	84,784
2027	167	13,797	110	-	98,638
2028	185	15,610	149	-	114,284
2029	201	15,685	171	-	129,999

O&S Independent Cost Estimate

Handheld, Manpack, and Small-Form Fit Radios Subprogram

Independent and Current Cost Estimate Comparison

Category	CY2011 (\$M)	Independent Cost Estimate 7/20/2021	Current Estimate 4/24/2024	Variance with ICE (%)
Unit-Level Manpower		74.6	58.8	-21%
Unit Operations		387.5	383.2	-1%
Maintenance		802.7	763.0	-5%
Sustaining Support		20.7	22.1	7%
Continued System Improvements		188.6	168.6	-11%
Other				-
Total O&S		1,474.0	1,395.7	-5%

Independent Cost Estimate Source

Event: Full Rate Production
Type: Independent Cost Estimate
Approved by: Center for Army Analysis, July 20, 2021
Note: An ICE was prepared by Costs Assessment and Program Evaluation (CAPE) in support of FRP decision.

Current Cost Estimate Source

Type: Program Office Estimate
Approved by: PM TR, April 24, 2024
Note: ACEIT version 8.1 is used to prepare the current program office estimate. The FRP version of the POE has been updated over time in order to get to the current cost position. Annual estimates in by variant are not available at this time.

Cost Estimate Variance Explanation

The current estimate is within 4% of the ICE. The largest deviation is in Leader Radio unit level manpower. The ICE uses the LORA variables for Thales LR, but DASA-CE and program were of the opinion that the mean time to repair (MTTR) values used for Thales LR were extreme. They were approx 10 times the values used for L3 Harris Leader Radios. The second variance contributor is field SW engineering. CECOM SEC provided estimated software maintenance updates, and field SW engineering was adjusted.

Annual Operating and Support Estimates by Cost Element

Handheld, Manpack, and Small-Form Fit Radios Subprogram

System: HMS Radios

Source for TY-CY Conversion:

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY2011 (\$M)
Total	-	-	-	-	-	-	-