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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605042A / <i>Tactical Network Radio Systems (Low-Tier)</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	27.688	4.426	4.318	-	4.318	4.405	3.495	8.598	8.639	0.000	61.569
FA1: <i>Manpack Radio</i>	-	17.042	3.023	2.858	-	2.858	2.921	1.976	6.961	6.983	0.000	41.764
FA2: <i>Rifleman Radio (RR)</i>	-	10.646	1.403	1.460	-	1.460	1.484	1.519	1.637	1.656	0.000	19.805

A. Mission Description and Budget Item Justification

This funding line is directly aligned to the Army Network Modernization Priority. This effort supports the Army Network Modernization Strategy Line of Effort 1, Unified Network.

Tactical Network Radio Systems (Low-Tier) provide both Classified and Unclassified communications. The radios provide the Single Channel Ground and Airborne Radio System (SINCGARS) waveform for Classified and Unclassified communications. They also provide advanced networking waveforms (e.g. TrellisWare TSM) that provide Secure but Unclassified (SBU) communications. The Manpack (MP) radio provides the Mobile User Objective System (MUOS) waveform for Tactical Satellite communications.

The Handheld, Manpack, and Small Form Fit (HMS) radio program is a single Acquisition Category 1C program encompassing handheld radios and manpack radios. Handheld radio variants include the legacy single-channel Rifleman Radio (RR), Single Channel Data Radio (SCDR), and two-channel Leader Radio (LR). The manpack variants include the legacy Generation 1 Manpack, and the current Generation 2 Manpack. 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 supports 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.

FY2019 - FY2022 RDT&E funds supported Integrated Tactical Network (ITN) testing and evaluation, of which HMS is a key component, in addition to HMS Program of Record (PoR) test events. The HMS radio systems serve as the backbone of the ITN architecture, supporting a converged Mission Command network. The ITN tests supported mature system development, integration, and demonstration in support of ITN evaluation to include: concept refinement, characterization, data collection, demos, integrated testing, and operational assessments. The ITN is a warfighter-enabling System of Systems comprised of key networking components including HMS PoR radio systems, advanced high capacity commercial radios, commercial phone technologies, and advanced radio-application gateway integration and interoperability technologies. These ITN technologies increase transport options and support a converged Mission Command network. The ITN introduces a new SBU security domain enhancing Mission Partner interoperability and significantly reducing key distribution and other security-related burdens for the Soldier at lower echelons. Starting in FY 2023, ITN funds were realigned to PE 0605236A, CQ1.

HMS completed Initial Operational Test and Evaluation (IOT&E) during January 2021. Following the IOT&E test event, HMS outlined specific actions required to resolve test findings from the IOT&E event. FY2024 RDT&E funding supports testing activities including laboratory technical testing, Performance Verification Tests (PVTs),

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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605042A / <i>Tactical Network Radio Systems (Low-Tier)</i>
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and Operational User Assessments (OUAs). Each of these events provides both technical and operational user feedback on increased capabilities, future waveform incorporation, soldier usability, and life-cycle sustainment improvements.

The total cost of the Integrated Tactical Network (ITN) Middle Tier of Acquisition effort is \$76 million RDT&E from FY23 to FY28. The ITN MTA is fully funded across the Future Years Defense Program.

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	28.741	4.497	4.409	-	4.409
Current President's Budget	27.688	4.426	4.318	-	4.318
Total Adjustments	-1.053	-0.071	-0.091	-	-0.091
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.053	-			
• Adjustments to Budget Years	-	-	-0.091	-	-0.091
• FFRDC Transfer	-	-0.071	-	-	-

Change Summary Explanation
Decreased funding to support higher Army priorities.

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Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605042A / <i>Tactical Network Radio Systems (Low-Tier)</i>				Project (Number/Name) FA1 / <i>Manpack Radio</i>			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
FA1: <i>Manpack Radio</i>	-	17.042	3.023	2.858	-	2.858	2.921	1.976	6.961	6.983	0.000	41.764
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This funding line is directly aligned to the Army Network Modernization Priority. This effort supports the Army Network Modernization Strategy Line of Effort 1, Unified Network.

MP radios provide both Classified and Unclassified communications. MP radios provide the Single Channel Ground and Airborne Radio System (SINGARS) waveform for Classified and Unclassified communications. MP radios also provide advanced waveforms (e.g. TrellisWare TSM) that provide SBU communications. The MP radio provides the Mobile User Objective System (MUOS) waveform for Tactical Satellite (TACSAT) communications. The HMS program received a positive Full Rate Production (FRP) decision in 2021 and plans to host a PVT and OUA annually to verify vendor enhancements.

The Handheld, Manpack, and Small Form Fit (HMS) radio systems serve as the backbone of the Integrated Tactical Network (ITN) architecture, supporting a converged Mission Command network. FY2019 - FY2022 RDT&E funds supported ITN testing and evaluation, of which HMS is a key component, in addition to HMS Program of Record (PoR) test events. The ITN tests supported mature system development, integration, and demonstration in support of ITN evaluation to include: concept refinement, characterization, data collection, demos, integrated testing, and operational assessments. The ITN is a warfighter-enabling System of Systems comprised of key networking components including HMS PoR radio systems, advanced high capacity commercial radios, commercial phone technologies, and advanced radio-application gateway integration and interoperability technologies. These ITN technologies increase transport options and support a converged Mission Command network. The ITN introduces a new Secure But Unclassified (SBU) security domain enhancing Mission Partner interoperability and significantly reducing key distribution and other security-related burdens for the Soldier at lower echelons. Starting in FY 2023, ITN funds were realigned to PE 0605236A, CQ1.

HMS completed Initial Operational Test and Evaluation (IOT&E) during January 2021. Following the IOT&E test event, HMS outlined specific actions required to resolve test findings from the IOT&E event. FY2023 and beyond RDT&E funding supports testing activities including laboratory technical testing, Performance Verification Tests (PVTs), and Operational User Assessments (OUAs). Each of these events provides both technical and operational user feedback on increased capabilities, future waveform incorporation, soldier usability, and life-cycle sustainment improvements.

FY2024 funds in the amount of \$2.858M support delta testing, Performance Verification Tests (PVTs), Operational User Assessments (OUAs), examination of modular and open system architectures to decrease future integration and waveform porting costs.

The total cost of the Integrated Tactical Network (ITN) Middle Tier of Acquisition effort is \$76 million RDT&E from FY23 to FY28. The ITN MTA is fully funded across the Future Years Defense Program.

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023		
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605042A / <i>Tactical Network Radio Systems (Low-Tier)</i>	Project (Number/Name) FA1 / <i>Manpack Radio</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>Title: Program Management</p> <p>Description: Program management includes overall management of program execution, major events, reporting, funds execution, contract management, and logistical support. Includes participation in program planning and Integrated Product Team meetings.</p> <p>FY 2023 Plans: FY 2023 funds will provide overall management and oversight to implement HMS acquisition strategy - to include Matrix and Contractor support.</p> <p>FY 2024 Plans: FY 2024 funds will provide overall management and oversight to implement HMS acquisition strategy - to include Matrix and Contractor support.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Budget decreased from FY2023 to FY2024 as a result of changes in labor rates for projected PMO support.</p>		1.806	0.118	0.110
<p>Title: HMS Engineering/Technical Support</p> <p>Description: Overall technical analysis support to HMS Manpack products.</p> <p>FY 2023 Plans: FY 2023 funds will provide technical systems engineering support to evaluate technical alternatives and perform communication architecture analysis to identify alternatives to reduce cost, improve performance, and achieve tactical radio objectives.</p> <p>FY 2024 Plans: FY 2024 funds will provide technical systems engineering support to evaluate technical alternatives and perform communication architecture analysis to identify alternatives to reduce cost, improve performance, and achieve tactical radio objectives.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Budget decreased from FY2023 to FY2024 as a result of changes in labor rates for projected Engineering/Technical Support.</p>		3.123	1.623	1.648
<p>Title: Test and Evaluation</p> <p>Description: Manpack's Test and Evaluation focuses on the key technical and operational characteristics of the system: Radio Frequency performance, security, Reliability, Availability & Maintainability, suitability and survivability requirements, in addition to operational environmental performance requirements as per the Capability Production Document. Results from OT facilitated future procurement for Full Rate Production and informed required delta testing. HMS funding supports delta testing, Performance Verification Tests (PVTs), and Operational User Assessments (OUAs).</p>		12.113	1.167	1.100

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>FY 2023 Plans: FY 2023 Research Development Test & Evaluation (RDT&E) funding supports HMS delta testing, Performance Verification Test (PVT), Operational User Assessment (OUA), examination of modular and open system architectures to decrease future integration and waveform porting costs.</p> <p>FY 2024 Plans: FY 2024 Research Development Test & Evaluation (RDT&E) funding supports HMS delta testing, Performance Verification Tests (PVTs), Operational User Assessments (OUAs), examination of modular and open system architectures to decrease future integration and waveform porting costs.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funding decreased due to adjustments in testing requirements for FY24.</p>			
<p>Title: SBIR/STTR Transfer</p> <p>FY 2023 Plans: SBIR/STTR transfer</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Decrease due to budget decrease from FY2023 to FY2024.</p>	-	0.115	-
Accomplishments/Planned Programs Subtotals	17.042	3.023	2.858

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• FA2: <i>Rifleman Radio (RR)</i>	10.646	1.403	1.460	-	1.460	1.484	1.519	1.637	1.656	0.000	19.805
• B95004: <i>Handheld Manpack Small Form Fit (HMS)</i>	724.099	660.270	765.109	-	765.109	738.648	737.854	753.100	762.583	Continuing	Continuing

Remarks

D. Acquisition Strategy
MP Radio is currently executing a March 2017 approved acquisition strategy to procure Non-Developmental Items (NDI). Utilizing a full and open competition strategy, the MP base contract was awarded to all potential industry partners. The MP contract was awarded on 26 February 2016, and procures NDI MP radios for use in a classified environment. As laid out in the Acquisition Strategy, the current candidate NDI radios have demonstrated through testing, compliance with program requirements; assess effectiveness, suitability, and survivability; to obtain material release(s) for Full Rate Production (FRP). The MP is currently capable of running the

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<p>following waveforms: Single Channel Ground and Airborne Radio System (SINCGARS), Warrior Robust Enhanced Network (WREN) TSM, as well as legacy Satellite Communications (SATCOM), and the modernized, Navy managed Mobile User Objective System (MUOS) TACSAT waveform.</p> <p>On 14 May 2019, the ITN gained approval from the Army Acquisition Executive to execute via the Middle Tier of Acquisition (MTA) Rapid Prototyping pathway. The ITN Rapid Prototyping MTA approach provides for the use of innovative technologies to rapidly develop fieldable prototypes to demonstrate new capabilities and meet emerging military needs. The ITN acquisition approach is based on integration of Commercial-Off-The-Shelf (COTS), Non-Developmental Item (NDI), and Government-Off-The-Shelf (GOTS) components. The accelerated schedule for the procurement of experimentation equipment was directed by the Army and driven by the ITN Directed Requirement (DR). Contract execution for ITN Non-POR equipment is being leveraged from existing indefinite delivery indefinite quantity (IDIQ) contracts. All contracts are competitive awards using FAR approved contracting vehicles, such as DLA, CHS, NASA SEWP, GSA (IDIQ) or direct contracts that have been established after a market survey has been completed. In FY 2023 and out, this funding transitioned to PE 0605236A, CQ1 and Project FA1 should no longer be identified for using Middle Tier of Acquisition (MTA) Rapid Prototyping pathway as it no longer applies.</p> <p>In 2023, HMS will begin the process of conducting a re-compete of the existing MP IDIQ contract in support of an FY26 award. The re-compete will include upgrades to the base contract including specific sustainment requirements, updated quantity pricing schedules, and other lessons-learned from the previous IDIQ.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
2040 / 5				PE 0605042A / Tactical Network Radio Sys tems (Low-Tier)				FA1 / Manpack Radio							
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Office Support	Various	PEO C3T & CECOM : Various; APG, MD	3.220	1.806	Jan 2022	0.118	Apr 2023	0.110		-		0.110	0.000	5.254	-
Subtotal			3.220	1.806		0.118		0.110		-		0.110	0.000	5.254	N/A
Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering/Technical Support	Various	PEO C3T, ARL, C5ISR, & ATC : Various	20.598	3.123	May 2022	1.738	Apr 2023	1.648		-		1.648	0.000	27.107	-
Subtotal			20.598	3.123		1.738		1.648		-		1.648	0.000	27.107	N/A
Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Follow on Delta Development & Testing	Various	EPG : Ft. Huachuca	4.098	1.556	Jul 2022	1.167	Apr 2023	1.100		-		1.100	0.000	7.921	-
ITN Testing	Various	Various : TBD	3.684	10.557	Jun 2022	-		-		-		-	0.000	14.241	-
Subtotal			7.782	12.113		1.167		1.100		-		1.100	0.000	22.162	N/A
Project Cost Totals			31.600	17.042		3.023		2.858		-		2.858	0.000	54.523	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605042A / <i>Tactical Network Radio Sys tems (Low-Tier)</i>	Project (Number/Name) FA1 / <i>Manpack Radio</i>

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
ITN CS23 Prototyping & Testing	ITN CS23 Prototyping & Testing																													
ITN CS23 Soldier Touch Point	1 ITN CS23 STP																													
ITN CS23 Design Decision	2 ITN CS23 Design Decision																													
Armored Brigade Combat Team (ABCT) Characterization	3 ABCT Characterization																													
Performance Verification Test (PVT)	PVT																													
Performance Verification Test (PVT) FY22			PVT																											
Operational User Assessment (OUA) FY23					OUA																									
Performance Verification Test (PVT) FY23							PVT																							
Operational User Assessment (OUA) FY23 #2									OUA																					
Performance Verification Test (PVT) FY24											PVT																			
Operational User Assessment (OUA) FY24													OUA																	
Performance Verification Test (PVT) FY25															PVT															
Operational User Assessment (OUA) FY25																	OUA													

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
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Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Performance Verification Test (PVT) FY26																	PVT															
Operational User Assessment (OUA) FY26																	OUA															
Performance Verification Test (PVT) FY27																	PVT															
Operational User Assessment (OUA) FY27																	OUA															
Performance Verification Test (PVT) FY28																	PVT															
Operational User Assessment (OUA) FY28																	OUA															

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605042A / <i>Tactical Network Radio Systems (Low-Tier)</i>	Project (Number/Name) FA1 / <i>Manpack Radio</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
ITN CS23 Prototyping & Testing	2	2021	2	2022
ITN CS23 Soldier Touch Point	2	2022	2	2022
ITN CS23 Design Decision	3	2022	3	2022
Armored Brigade Combat Team (ABCT) Characterization	3	2022	3	2022
Performance Verification Test (PVT)	1	2022	1	2022
Performance Verification Test (PVT) FY22	4	2022	4	2022
Operational User Assessment (OUA) FY23	1	2023	1	2023
Performance Verification Test (PVT) FY23	3	2023	3	2023
Operational User Assessment (OUA) FY23 #2	4	2023	4	2023
Performance Verification Test (PVT) FY24	3	2024	3	2024
Operational User Assessment (OUA) FY24	4	2024	4	2024
Performance Verification Test (PVT) FY25	3	2025	3	2025
Operational User Assessment (OUA) FY25	4	2025	4	2025
Performance Verification Test (PVT) FY26	3	2026	3	2026
Operational User Assessment (OUA) FY26	4	2026	4	2026
Performance Verification Test (PVT) FY27	3	2027	3	2027
Operational User Assessment (OUA) FY27	4	2027	4	2027
Performance Verification Test (PVT) FY28	3	2028	3	2028
Operational User Assessment (OUA) FY28	4	2028	4	2028

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FA2: <i>Rifleman Radio (RR)</i>	-	10.646	1.403	1.460	-	1.460	1.484	1.519	1.637	1.656	0.000	19.805
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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The Handheld, Manpack, and Small Form Fit (HMS) radio systems serve as the backbone of the Integrated Tactical Network (ITN) architecture, supporting a converged Mission Command network. FY2019 - FY2022 Research Development Test & Evaluation (RDT&E) funds supported ITN testing and evaluation, of which HMS is a key component, in addition to HMS Program of Record (PoR) test events. The ITN tests supported mature system development, integration, and demonstration in support of ITN evaluation to include: concept refinement, characterization, data collection, demos, integrated testing, and operational assessments. The ITN is a warfighter-enabling System of Systems comprised of key networking components including HMS PoR radio systems, advanced high capacity commercial radios, commercial phone technologies, and advanced radio-application gateway integration and interoperability technologies. These ITN technologies increase transport options and support a converged Mission Command network. The ITN introduces a new Secure But Unclassified (SBU) security domain enhancing Mission Partner interoperability and significantly reducing key distribution and other security-related burdens for the Soldier at lower echelons. Starting in FY 2023, ITN funds were realigned to PE 0605236A, CQ1.

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FY2024 funds in the amount of \$1.460M support delta testing, Performance Verification Tests (PVTs), Operational User Assessments (OUAs), examination of modular and open system architectures to decrease future integration and waveform porting costs.

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B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2022	FY 2023	FY 2024
<p>Title: Program Management</p> <p>Description: Program management includes overall management of program execution, major events, reporting, funds execution, contract management, and logistical support. Includes participation in program planning and Integrated Product Team meetings.</p> <p>FY 2023 Plans: FY 2023 funds will provide overall management and oversight to implement HMS acquisition strategy - to include Matrix and Contractor support.</p> <p>FY 2024 Plans: FY 2024 funds will provide overall management and oversight to implement HMS acquisition strategy - to include Matrix and Contractor support.</p>	1.268	0.058	0.058
<p>Title: HMS Engineering/Technical Support</p> <p>Description: Overall technical analysis support to HMS Handheld products.</p> <p>FY 2023 Plans: FY 2023 funds will provide technical systems engineering support to evaluate technical alternatives and perform communication architecture analysis to identify alternatives to reduce cost, improve performance, and achieve tactical radio objectives. Funds will facilitate technical test support for candidate products utilized within ITN's iterative evaluation and capability implementation strategy to include LR.</p> <p>FY 2024 Plans: FY 2024 funds will provide technical systems engineering support to evaluate technical alternatives and perform communication architecture analysis to identify alternatives to reduce cost, improve performance, and achieve tactical radio objectives.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Budget increased from FY2023 to FY2024 as a result of changes in labor rates for projected Engineering/Technical Support.</p>	1.725	0.917	1.019
<p>Title: Test and Evaluation</p>	7.653	0.374	0.383

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605042A / <i>Tactical Network Radio Systems (Low-Tier)</i>	Project (Number/Name) FA2 / <i>Rifleman Radio (RR)</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>Description: Handheld's Test and Evaluation focuses on the evaluation of key technical and operational characteristics of the system: Radio Frequency performance, security, Reliability, Availability & Maintainability, and survivability requirements, in addition to operational environmental performance requirements as per the Capability Production Document. All previous testing on the Leader Radio, served as risk reduction and Operational Test (OT) preparations in support of FRP. Results from the OT facilitated future procurement for Full Rate Production and informed required delta testing. HMS funding supports delta testing, Performance Verification Tests (PVTs), and Operational User Assessments (OUAs).</p> <p>FY 2023 Plans: FY 2023 Research Development Test & Evaluation (RDT&E) funding supports HMS delta testing, Performance Verification Tests (PVTs), Operational User Assessments (OUAs), examination of modular and open system architectures to decrease future integration and waveform porting costs.</p> <p>FY 2024 Plans: FY 2024 Research Development Test & Evaluation (RDT&E) funding supports HMS delta testing, Performance Verification Tests (PVTs), Operational User Assessments (OUAs), examination of modular and open system architectures to decrease future integration and waveform porting costs.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Budget increased from FY2023 to FY2024 as a result of changes in labor rates for projected Test and Evaluation support.</p>			
<p>Title: SBIR/STTR Transfer</p> <p>Description: Funding transferred in accordance with Title 15 USC §638</p> <p>FY 2023 Plans: Funding transferred in accordance with Title 15 USC §638</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funding transferred in accordance with Title 15 USC §638</p>	-	0.054	-
Accomplishments/Planned Programs Subtotals	10.646	1.403	1.460

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• FA1: <i>Manpack Radio</i>	17.042	3.023	2.858	-	2.858	2.921	1.976	6.961	6.983	0.000	41.764

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army	Date: March 2023
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• B95004: <i>Handheld Manpack Small Form Fit (HMS)</i>	724.099	660.270	765.109	-	765.109	738.648	737.854	753.100	762.583	Continuing	Continuing

Remarks

D. Acquisition Strategy

On 13 September 2016 the Army Acquisition Executive approved a decrease to the Basis of Issue (BOI) for the single channel RR, increase the BOI for the two channel LR and move forward with acquisition activities for the two channel LR. An acquisition strategy addendum adding LR was approved in March 2017. The addendum continued the multi-vendor approach utilizing the existing Indefinite Delivery Indefinite Quantity (IDIQ) RR base contract (awarded 29 April 2015) to on-ramp LR capabilities (18 September 2018). The LR effort is a separate competition under the Handheld radio suite. As laid out in the acquisition strategy, these candidate non-developmental radios will need to demonstrate through testing, compliance with program requirements; assess effectiveness, suitability, and survivability; to obtain material release for Full Rate Production (FRP).

The LR will simultaneously run Single Channel Ground and Airborne Radio System (SINCGARS) and other advanced networking waveforms, in one radio with both handheld and mounted configurations, for fixed and mobile sites.

In 2022, HMS began the process of conducting a re-compete of the existing LR IDIQ contract in support of an FY25 award. The re-compete will include upgrades to the base contract including specific sustainment requirements, updated quantity pricing schedules, and other lessons-learned from the previous IDIQ.

In 2021, SCDR transitioned to the HMS program. SCDR utilizes an Other Transaction Authority (OTA) from an existing IDIQ.

On 14 May 2019, the ITN gained approval from the Army Acquisition Executive to execute via the Middle Tier of Acquisition (MTA) Rapid Prototyping pathway. The ITN Rapid Prototyping MTA approach provides for the use of innovative technologies to rapidly develop fieldable prototypes to demonstrate new capabilities and meet emerging military needs. The ITN acquisition approach is based on integration of Commercial-Off-The-Shelf (COTS), Non-Developmental Item (NDI), and Government-Off-The-Shelf (GOTS) components. The accelerated schedule for the procurement of experimentation equipment was directed by the Army and driven by the ITN Directed Requirement (DR). Contract execution for ITN Non-POR equipment is being leveraged from existing indefinite delivery indefinite quantity (IDIQ) contracts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
2040 / 5				PE 0605042A / Tactical Network Radio Systems (Low-Tier)				FA2 / Rifleman Radio (RR)							
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Office Support	Various	PEO C3T & CECOM : Various; APG, MD	3.031	1.268	Jan 2022	0.058	Apr 2023	0.058		-		0.058	0.000	4.415	Continuing
Subtotal			3.031	1.268		0.058		0.058		-		0.058	0.000	4.415	N/A
Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
HMS Engineering/ Technical Support	Various	PEO C3T, ARL, C5ISR, & ATC : Various	7.567	1.725	Jan 2022	0.971	Apr 2023	1.019		-		1.019	0.000	11.282	-
Subtotal			7.567	1.725		0.971		1.019		-		1.019	0.000	11.282	N/A
Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Follow on Delta Development & Testing	Various	EPG : Fort Huachuca	5.738	1.064	Jul 2022	0.374	Apr 2023	0.383		-		0.383	0.000	7.559	-
ITN Testing	Various	Various : TBD	17.310	6.589	Mar 2022	-		-		-		-	0.000	23.899	-
Subtotal			23.048	7.653		0.374		0.383		-		0.383	0.000	31.458	N/A
Project Cost Totals			33.646	10.646		1.403		1.460		-		1.460	0.000	47.155	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605042A / <i>Tactical Network Radio Systems (Low-Tier)</i>	Project (Number/Name) FA2 / <i>Rifleman Radio (RR)</i>

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
ITN CS23 Soldier Touch Point	1 ▲ ITN CS23 STP																												
ITN CS23 Prototyping & Testing	■ ITN CS23 Prototyping & Testing																												
ITN CS23 Design Decision	2 ▲ ITN CS23 Design Decision																												
Armored Brigade Combat Team (ABCT) Characterization	3 ▲ ABCT Characterization																												
Performance Verification Test (PVT) FY22	■ PVT																												
Operational User Assessment (OUA) FY23				■ OUA																									
Performance Verification Test (PVT) FY23					■ PVT																								
Operational User Assessment (OUA) FY23 #2								■ OUA																					
Performance Verification Test (PVT) FY24									■ PVT																				
Operational User Assessment (OUA) FY24										■ OUA																			
Performance Verification Test (PVT) FY25											■ PVT																		
Operational User Assessment (OUA) FY25												■ OUA																	
Performance Verification Test (PVT) FY26													■ PVT																

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
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Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
Operational User Assessment (OUA) FY26																					OUA															
Performance Verification Test (PVT) FY27																									PVT											
Operational User Assessment (OUA) FY27																													OUA							
Performance Verification Test (PVT) FY28																																	PVT			
Operational User Assessment (OUA) FY28																																				

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605042A / <i>Tactical Network Radio Systems (Low-Tier)</i>	Project (Number/Name) FA2 / <i>Rifleman Radio (RR)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
ITN CS23 Soldier Touch Point	2	2022	2	2022
ITN CS23 Prototyping & Testing	2	2021	2	2022
ITN CS23 Design Decision	3	2022	3	2022
Armored Brigade Combat Team (ABCT) Characterization	3	2022	3	2022
Performance Verification Test (PVT) FY22	4	2022	4	2022
Operational User Assessment (OUA) FY23	1	2023	1	2023
Performance Verification Test (PVT) FY23	3	2023	3	2023
Operational User Assessment (OUA) FY23 #2	4	2023	4	2023
Performance Verification Test (PVT) FY24	3	2024	3	2024
Operational User Assessment (OUA) FY24	4	2024	4	2024
Performance Verification Test (PVT) FY25	3	2025	3	2025
Operational User Assessment (OUA) FY25	4	2025	4	2025
Performance Verification Test (PVT) FY26	3	2026	3	2026
Operational User Assessment (OUA) FY26	4	2026	4	2026
Performance Verification Test (PVT) FY27	3	2027	3	2027
Operational User Assessment (OUA) FY27	4	2027	4	2027
Performance Verification Test (PVT) FY28	3	2028	3	2028
Operational User Assessment (OUA) FY28	4	2028	4	2028