Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army											Date: April 2022	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604201A / *Aircraft Avionics*							
COST ($ in Millions)	**Prior Years**	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
Total Program Element	-	7.011	6.654	3.335	-	3.335	2.576	0.000	2.959	2.987	Continuing	Continuing
C97: *ACFT Avionics*	-	6.357	5.807	2.278	-	2.278	1.297	-	-	-	Continuing	Continuing
VU3: *Networking And Mission Planning*	-	0.654	0.847	1.057	-	1.057	1.279	-	2.959	2.987	Continuing	Continuing

A. Mission Description and Budget Item Justification

A portion of this funding line is directly aligned to the Assured Positioning, Navigation, & Timing (APNT) Army Modernization Priority. The Fiscal Year (FY) 2023 budget request funds the development of Aircraft Avionics systems required to horizontally and vertically integrate the battlefield and the integration of those systems into Army aircraft. Tasks in this Program Element support research, development, and test efforts in the Engineering and Manufacturing Development phases of these systems. Alternate capabilities (non-GPS) and/or complimentary PNT solutions will be investigated, studied, evaluated and developed as standalone or blended navigation functions.

The Enhanced Aviation Global Air Traffic Management (GATM) Localizer Performance with Vertical Guidance (LPV) Embedded Global Positioning System (GPS) Inertial Navigation System (EGI) (EAGLE-M) development program upgrades existing EGI hardware by incorporating M-Code to provide Assured Positioning, Navigation and Timing (A-PNT) capability in a GPS degraded environment.

The Alternate Position, Navigation, and Time (ALT-PNT) enables precise navigation and timing during Multidomain Operations (MDO) operations in the absence of GPS by leveraging ALT-NAV and Vision Based Navigation (VBN) efforts, and providing a secure and reliable fused PNT solution utilizing new and existing high grade sensors available on manned aviation aircraft. ALT-PNT utilizes Modular Open System Architecture (MOSA) standards allowing rapid and affordable platform integration, adopting of new technologies, and adjustment to changes in adversarial capability.

The Degraded Visual Environment (DVE) Environment Exploitation System (EES) focuses on active and passive sensor technology, synthetic vision, sensor and software data fusion, imagery processing, user interface, and multicore processing technologies to enable current and future capabilities and innovative technical solutions for the Army aviation fleet.

The Improved Data Modem (IDM) is the common solution for digitizing Army Aviation and is fielded on every modernized, rotary-wing Army aircraft, including the CH-47 Chinook, AH-64 Apache and UH-60 Black Hawk. The IDM provides the Army rotary wing fleet with critical communication capabilities, enables connectivity to multiple radios used by rotary-wing aircraft and the Blue Force Tracking transceiver, and provides the means for rapid data transfer.

The Aviation Mission Common Server (AMCS) effort is a replacement and capability upgrade for the current Army IDM 401 and provides the future architecture, hardware, and software capabilities for the next generation of IDM functionality and expanded mission processing. The AMCS will provide Army aviation an Open System Architecture hardware and software digital backbone developed utilizing a Modular Open Systems Approach and aligns with the Enterprise Architecture

Framework (EAF). The AMCS program will implement Mission Command Information System (MCIS) and additional Common Operating Environment capabilities utilizing a flexible open systems architecture and distributed processing resources with the capacity and architecture to perform an array of additional non-flight critical computing, data processing, radio and communications management, and graphics generation functions for the enduring and future Army Aviation fleet while maintaining separation of non-flight critical mission system technology integration from flight critical components. The AMCS provides the ability to rapidly integrate technology upgrades required to keep pace with evolving threats on Multi-Domain Battlefield. The AMCS enables the hosting of enhanced capabilities to communicate, navigate, sense, deploy weapon systems and interoperate across the Joint Force, and will be the center of the future Common Digital Backbone for the enduring and future Army Aviation fleets. AMCS is a key enabler for Multi-Domain Operations.

The Aviation Mission Planning System (AMPS) is a system used to conduct pre-mission and aircraft performance planning. It receives data from multiple sources and provides that data digitally to the aircraft to support aviation missions. AMPS is used for automated mission planning, risk assessment, and transfer of mission data to aviation platforms within an Aviation unit. This includes route generation, performance planning, communications planning, terrain analysis, data transfer, and mission rehearsal. These efforts include development and testing of a new underlying architecture to support the move of Army Aviation Mission Planning from the current structure to one that supports synchronization both vertically and horizontally between Aviation and Ground forces. It will allow aircrews to continually plan and update route, threat, and performance data throughout all phases of an Aviation mission. Development of a mobile aircraft performance planning/weight and balance calculator is currently underway and will be the first migration of AMPS capabilities to a mobile hardware agnostic environment.

The AN/ARC-220 High Frequency (HF) Radio is a US Army rotary wing high frequency solution which is operational on over 2,400 Army helicopters (primarily CH-47, UH-60, and AH-64). Key capabilities are voice and data, Automatic Link Establishment, text messaging, position reporting, and Selective Calling. It is also Voice Interoperable with standard ground HF systems in use today. Efforts include development of an Airborne Radio Control Manager (ARCM) driver to enhance the modernization of the AN/ARC-220 HF Radio.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	7.011	6.654	0.000	-	0.000
Current President's Budget	7.011	6.654	3.335	-	3.335
Total Adjustments	0.000	0.000	3.335	-	3.335
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	3.335	-	3.335

Change Summary Explanation

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army			Date: April 2022
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *Aircraft Avionics*	Project (Number/Name) C97 / *ACFT Avionics*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
C97: *ACFT Avionics*	-	6.357	5.807	2.278	-	2.278	1.297	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Fiscal Year (FY) 2023 budget request funds the development of Aircraft Avionics systems required to horizontally and vertically integrate the battlefield and the integration of those systems into Army aircraft. Tasks in this Program Element support research, development, and test efforts in the Engineering and Manufacturing Development phases of these systems. Alternate capabilities (non-GPS) and/or complimentary PNT solutions will be investigated, studied, evaluated and developed as standalone or blended navigation functions.

The Enhanced Aviation Global Air Traffic Management (GATM) Localizer Performance with Vertical Guidance (LPV) Embedded Global Positioning System (GPS) Inertial Navigation System (EGI) (EAGLE-M) development program upgrades existing EGI hardware by incorporating M-Code to provide Assured Positioning, Navigation and Timing (A-PNT) capability in a GPS degraded environment.

The Alternate Position, Navigation, and Time (ALT-PNT) enables precise navigation and timing during Multidomain Operations (MDO) operations in the absence of GPS by leveraging ALT-NAV and Vision Based Navigation (VBN) efforts, and providing a secure and reliable fused PNT solution utilizing new and existing high grade sensors available on manned aviation aircraft. ALT-PNT utilizes Modular Open System Architecture (MOSA) standards allowing rapid and affordable platform integration, adopting of new technologies, and adjustment to changes in adversarial capability.

FY22 SBIR/STTR Transfer $212k in accordance with Title 15 USC 638.

The AN/ARC-220 High Frequency (HF) Radio is a US Army rotary wing high frequency solution which is operational on over 2,400 Army helicopters (primarily CH-47, UH-60, and AH-64). Key capabilities are voice and data, Automatic Link Establishment, text messaging, position reporting, and Selective Calling. It is also Voice Interoperable with standard ground HF systems in use today. Efforts include development of an Airborne Radio Control Manager (ARCM) driver to enhance the modernization of the AN/ARC-220 HF Radio.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: EAGLE Navigation System A-PNT Integration	1.857	5.595	2.278
Description: The Enhanced Aviation Global Air Traffic Management (GATM) Localizer Performance with Vertical Guidance (LPV) Embedded Global Positioning System (GPS) Inertial Navigation System (EGI) (EAGLE-M) development program upgrades existing EGI hardware by incorporating M-Code to provide Assured Positioning, Navigation and Timing (A-PNT) capability in a GPS degraded environment.			
FY 2022 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *Aircraft Avionics*	**Project (Number/Name)** C97 / *ACFT Avionics*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Continue EAGLE-M development through safety of flight (SOF) qualification followed by full airworthiness testing/qualification. ***FY 2023 Plans:*** Conclude EAGLE-M full airworthiness testing/qualification and begin ALT-PNT technological maturation development efforts. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY23 funding decreases as a result of the predicted completions in EAGLE-M development.			
Title: AN/ARC-220 High Frequency Radio Modernization	4.500	-	-
Title: FY22 SBIR/STTR Transfer ***Description:*** FY22 $212K SBIR/STTR transfer in accordance with Title 15 USC 638. ***FY 2022 Plans:*** FY22 $212K SBIR/STTR transfer in accordance with Title 15 USC 638. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY22 $212K SBIR/STTR transfer in accordance with Title 15 USC 638.	-	0.212	-
Accomplishments/Planned Programs Subtotals	6.357	5.807	2.278

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• AA0723: *Comms, Nav Surveillance*	101.355	58.117	72.387	-	72.387	85.081	63.984	38.380	38.233	Continuing	Continuing
• AA0704: *GATM - Rotary Wing Aircraft*	12.180	16.776	14.683	-	14.683	9.099	5.049	5.086	-	Continuing	Continuing
• A01006: *Aviation ASSURED PNT*	53.509	45.862	71.130	-	71.130	60.300	59.578	61.130	60.902	Continuing	Continuing
• C97: *ACFT Avionics*	6.357	5.807	2.278	-	2.278	1.297	-	-	-	Continuing	Continuing

Remarks

APA funding associated with the Aircraft Avionics Project C97 RDT&E efforts is now in the Aviation Assured PNT line (SSN A01006) beginning in FY21. Aviation Assured PNT funding on the Comms, Nav Surveillance line (SSN AA0723) was realigned to A01006 beginning in FY21.

D. Acquisition Strategy

This project is comprised of multiple systems supporting aircraft avionics. While the detailed acquisition strategy varies from program to program, the general strategy is for each individual program to complete the development and testing efforts in coordination with the aircraft platforms on integration issues, use the various contracts of the aircraft platforms original equipment manufacturers on integration efforts, and utilize the United States Army Combat Capabilities Development Command Aviation

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *Aircraft Avionics*	**Project (Number/Name)** C97 / *ACFT Avionics*

& Missile Center for software development. This requires the use of various contract methods and types to accomplish the aircraft avionics development efforts. All required acquisition program documentation is prepared.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army			Date: April 2022
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *Aircraft Avionics*	Project (Number/Name) C97 / *ACFT Avionics*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Services (EAGLE)	Various	Development Command Aviation & Missiles Center : Redstone Arsenal, AL	0.536	-		-		-		-		-	0.000	0.536	-
FY22 SBIR/STTR Transfer	TBD	TBD : TBD	-	-		0.212	Apr 2022	-		-		-	0.000	0.212	-
		Subtotal	0.536	-		0.212		-		-		-	0.000	0.748	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EGI/EAGLE A-PNT Assessment and Upgrade/ M-Code Integration	SS/CPFF	Honeywell : Clearwater, FL	20.915	-		-		-		-		-	0.804	21.719	-
EAGLE M-Code	SS/CPFF	Honeywell International : Clearwater, FL	-	1.787	Jun 2021	5.595	Feb 2022	2.278	Jan 2023	-		2.278	Continuing	Continuing	-
AN/ARC-220 High Frequency Radio Modernization	SS/CPFF	Defense Microelectronics Activity (DMEA) : San Francisco, CA	-	3.500	Jun 2021	-		-		-		-	0.000	3.500	-
Airborne Radio Control Manager Driver (AN/ ARC-220 HF Radio)	SS/CPFF	Georgia Tech Research Institute : Tucson, AZ	-	1.000	Jun 2021	-		-		-		-	0.000	1.000	-
		Subtotal	20.915	6.287		5.595		2.278		-		2.278	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EAGLE M-Code / EGI Flight Test Support	Various	Development Command Aviation & Missiles Center	0.173	0.035	Jun 2021	-		-		-		-	0.000	0.208	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army			Date: April 2022
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *Aircraft Avionics*	Project (Number/Name) C97 / *ACFT Avionics*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Engineering Directorate : Redstone Arsenal, AL													
		Subtotal	0.173	0.035		-		-		-		-	0.000	0.208	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EAGLE M-Code / EGI Airworthiness Qualification Testing	RO	Redstone Test Center : Redstone Arsenal, AL	0.146	0.035		-		-		-		-	0.000	0.181	-
		Subtotal	0.146	0.035		-		-		-		-	0.000	0.181	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	21.770	6.357		5.807		2.278		-		2.278	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *Aircraft Avionics*	**Project (Number/Name)** C97 / *ACFT Avionics*

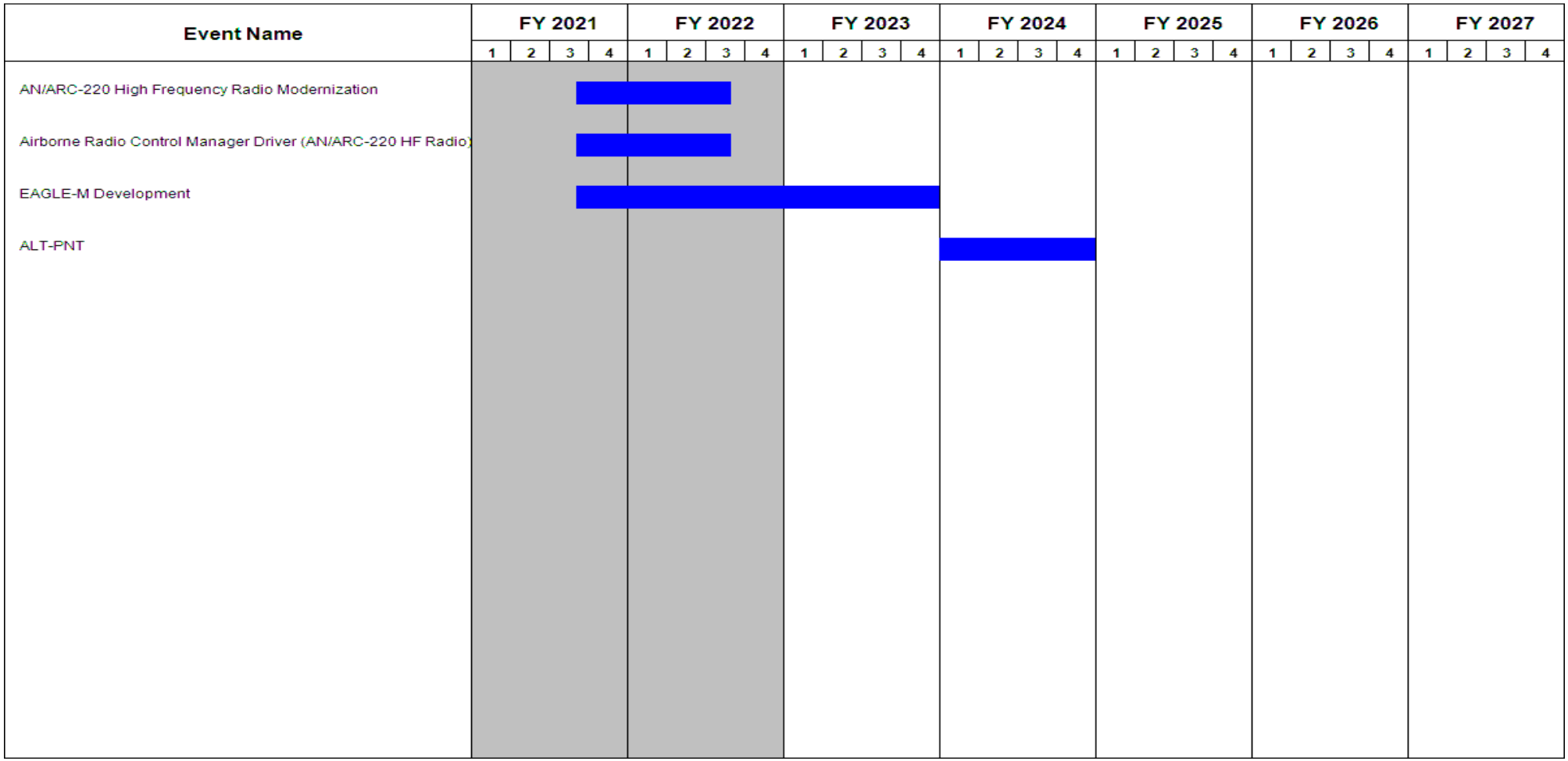


Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *Aircraft Avionics*	**Project (Number/Name)** C97 / *ACFT Avionics*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
AN/ARC-220 High Frequency Radio Modernization	3	2021	3	2022
Airborne Radio Control Manager Driver (AN/ARC-220 HF Radio)	3	2021	3	2022
EAGLE-M Development	3	2021	4	2023
ALT-PNT	1	2024	4	2024

Note

DGNS: Doppler Global Positioning System (GPS) Navigation Set
A-PNT: Assured-Position Navigation and Timing
M-Code: Military-Code
EGI: Embedded GPS Inertial

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army										Date: April 2022		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604201A / *Aircraft Avionics*				Project (Number/Name) VU3 / *Networking And Mission Planning*			
COST ($ in Millions)	**Prior Years**	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
VU3: *Networking And Mission Planning*	-	0.654	0.847	1.057	-	1.057	1.279	-	2.959	2.987	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Fiscal Year (FY) 2023 budget request funds the development of Networking and Mission Planning systems required to horizontally and vertically integrate the battlefield and the integration of those systems into Army aircraft. Tasks in this Project support research, development, and test efforts in the Engineering and Manufacturing Development phases of these systems.

The Improved Data Modem (IDM) is the common solution for digitizing Army Aviation and is fielded on every modernized, rotary-wing Army aircraft, including the CH-47 Chinook, AH-64 Apache and UH-60 Black Hawk. The IDM provides the Army rotary wing fleet with critical communication capabilities, enables connectivity to multiple radios used by rotary-wing aircraft and the Blue Force Tracking transceiver, and provides the means for rapid data transfer.

The Aviation Mission Common Server (AMCS) family of systems (FoS) effort initially serves as an obsolescence replacement with an open systems architecture and processing capacity to support future capability upgrades for the current Army IDM 401 capability set and provides an architecture that supports enabling, hosting and integrating future hardware and software capabilities in an Integrated Modular Avionics solution for the next generation of IDM functionality and expanded mission processing. The AMCS, an Aviation Mission Computing Environment (AMCE) Modular Open Systems Approach (MOSA) aligned Solution prototype, will provide Army aviation a hardware and software Open System Architecture nested on a digital backbone developed and implemented utilizing the aviation enterprise-based MOSA principles and aligns with the FVL/Enterprise Architecture Framework (FAF/EAF). The AMCS program will implement Mission Command Information System (MCIS) and additional Common Operating Environment capabilities utilizing a flexible open systems architecture and distributed processing resources with the capacity and architecture to perform an array of additional non-flight critical computing, data processing, radio and communications management, and graphics generation functions for the enduring and future Army Aviation fleet with the ability to pursue the separation of non-flight critical and flight critical mission system technology integration from flight critical components. The AMCS provides the ability to rapidly integrate technology upgrades required to keep pace with evolving threats on Multi-Domain Battlefield. The AMCS enables the hosting of enhanced capabilities to communicate, navigate, sense, deploy weapon systems and interoperate across the Joint Force, and will be the center of the future Common Digital Backbone for the enduring and future Army Aviation fleets. AMCS is a key enabler for Multi-Domain Operations and Army 2030.

The Aviation Mission Planning System (AMPS) is a system used to conduct pre-mission and aircraft performance planning. It receives data from multiple sources and provides that data digitally to the aircraft to support aviation missions. AMPS is used for automated mission planning, risk assessment, and transfer of mission data to aviation platforms within an Aviation unit. This includes route generation, performance planning, communications planning, terrain analysis, data transfer, and mission rehearsal. These efforts include development and testing of a new underlying architecture to support the move of Army Aviation Mission Planning from the current structure to one that supports synchronization both vertically and horizontally between Aviation and Ground forces. It will allow aircrews to continually plan and update route, threat, and performance data throughout all phases of an Aviation mission. Development of a mobile aircraft performance planning/weight and balance calculator is currently underway and will be the first migration of AMPS capabilities to a mobile hardware agnostic environment.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *Aircraft Avionics*	**Project (Number/Name)** VU3 / *Networking And Mission Planning*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Aviation Mission Common Server (AMCS) ***Description:*** The Aviation Mission Common Server (AMCS) effort is an obsolescence replacement and capability upgrade for the current Army IDM 401 and has a Modular Open Systems Approach (MOSA) aligned architecture which allows for future integration of hardware and software capabilities for the next generation of IDM functionality and expanded mission processing. ***FY 2022 Plans:*** Perform and support production representative prototype assessments, testing, demonstration and qualification activities in support of the Aviation Mission Common Server (AMCS) Modular Capabilities Demonstration Qualification and Prototype Delivery Phase and developmental activities. ***FY 2023 Plans:*** Perform and support production representative prototype assessments, testing, demonstration and qualification activities in support of the Aviation Mission Common Server (AMCS) Modular Capabilities Demonstration Qualification and Prototype Delivery Phase and developmental activities. Support software functionality integration and testing activities required to support integration into the AMCS hardware and initial platform integration lab and Safety of Flight testing for platform airworthiness qualification. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Increased funding is required to support testing and qualification requirements of the Aviation Mission Common Server (AMCS) transitioning from an Other Transaction Authority (OTA) development activity to production.	0.654	0.816	1.057
Title: FY22 SIBR/STTR Transfer ***FY 2022 Plans:*** SBIR/STTR amount in accordance with Title 15 USC 638. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** SBIR/STTR amount in accordance with Title 15 USC 638.	-	0.031	-
Accomplishments/Planned Programs Subtotals	0.654	0.847	1.057

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• AA0712: *Network And Mission Plan*	77.432	29.206	44.526	-	44.526	44.379	36.288	41.837	41.684	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *Aircraft Avionics*	**Project (Number/Name)** VU3 / *Networking And Mission Planning*

D. Acquisition Strategy

The AMCS will complete development, testing and qualification efforts in coordination with the aircraft platforms, use the various contracts of the aircraft platforms original equipment manufacturers on integration efforts, and utilize the U.S. Army Combat Capabilities Development Command (CCDC) - Aviation & Missile Center (AvMC) for software development and integration at both the Line Replaceable Unit and platform level. The AMCS is leveraging a competitive Other Transaction Authority (OTA) prototype agreement to develop and demonstrate multiple AMCS Family of Systems (FoS) capabilities and hardware solutions to inform the Milestone Decision Authority's production decision.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army			Date: April 2022
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *Aircraft Avionics*	Project (Number/Name) VU3 / *Networking And Mission Planning*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Support (IDM)	MIPR	PdM A2E2 : Redstone Arsenal, AL	0.050	-		-		-		-		-	0.000	0.050	-
PM Support (AMCS)	Various	Combat Communications Development Command, Aviation & Missile Center : Redstone Arsenal, AL	0.010	-		0.110		-		-		-	Continuing	Continuing	-
SBIR/STTR	TBD	To Be Determined : To Be Determined	-	-		0.031	Apr 2022	-		-		-	0.000	0.031	-
		Subtotal	0.060	-		0.141		-		-		-	Continuing	Continuing	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Develop software for IDM	C/Various	Combat Communications Development Command, Aviation & Missile Center : Redstone Arsenal, AL	1.518	-		-		-		-		-	0.000	1.518	-
Hardware and Software Development/ Demonstration for the Aviation Mission Common Server (AMCS)	C/Various	Combat Communications Development Command, Aviation & Missile Center : Redstone Arsenal, AL	-	0.618	Nov 2020	0.706	Dec 2021	-		-		-	Continuing	Continuing	-
AMCS Medical HUB Demonstration	MIPR	Combat Communications Development Command, Aviation	0.086	-		-		-		-		-	0.000	0.086	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army			Date: April 2022
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *Aircraft Avionics*	Project (Number/Name) VU3 / *Networking And Mission Planning*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		& Missile Center : Redstone Arsenal, AL													
AMCS Hardware and Software Prototype Development OTA	C/FFP	Mercury Systems : Mesa, AZ	0.199	-		-		0.171	Nov 2022	-		0.171	0.000	0.370	-
Hardware and Software Development/ Demonstration for the Aviation Mission Common Server (AMCS) C5	MIPR	PEO IEWS PM EW&C : APG, MD	0.042	0.036	Feb 2022	-		-		-		-	0.000	0.078	-
		Subtotal	1.845	0.654		0.706		0.171		-		0.171	Continuing	Continuing	N/A

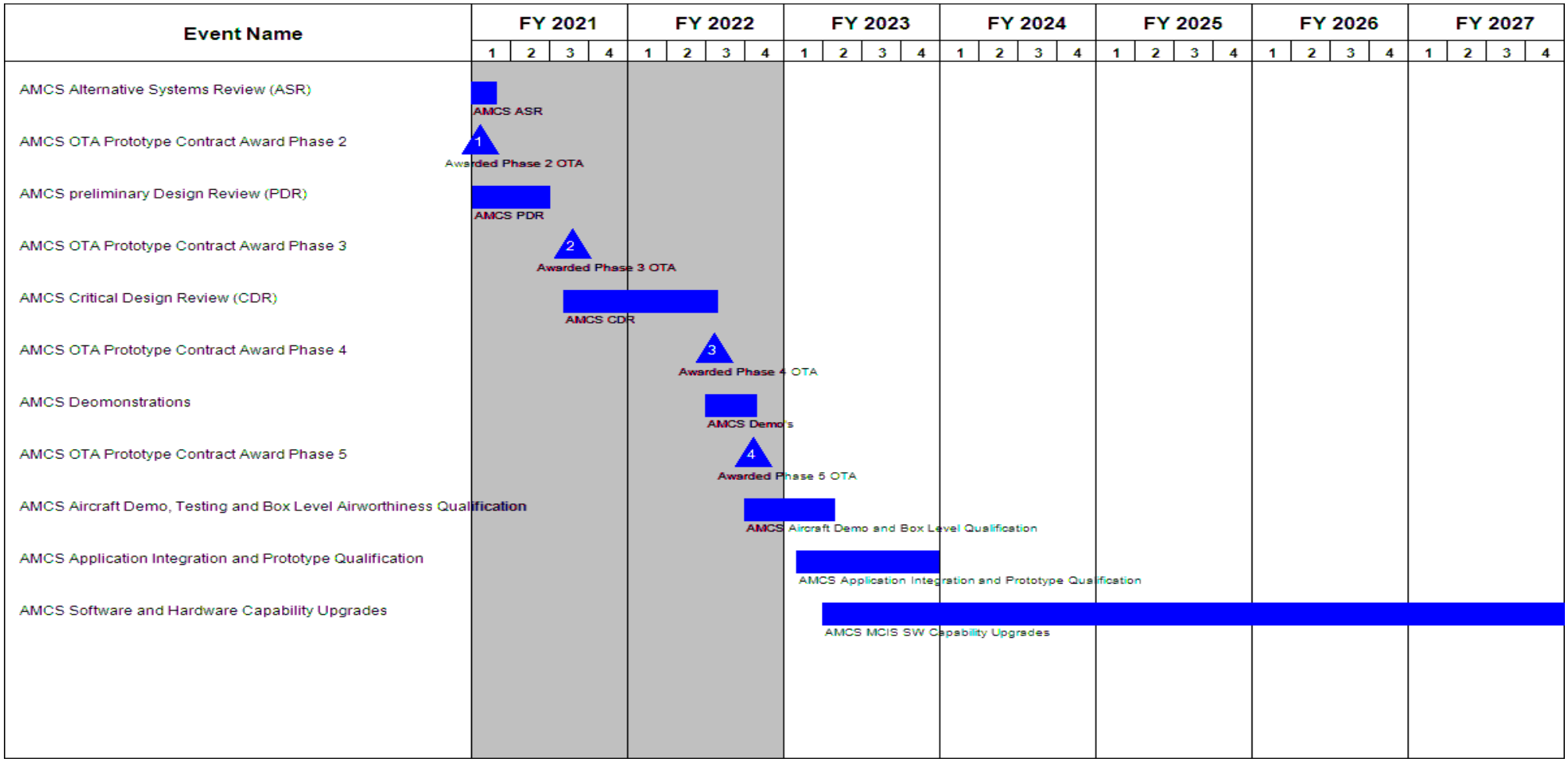
Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware and Software Development Support for the Aviation Mission Common Server (AMCS)	C/Various	Combat Communications Development Command, Aviation & Missile Center, Redstone Test Center and Platform SIL : Redstone Arsenal, AL	0.447	-		-		0.886	Nov 2022	-		0.886	Continuing	Continuing	-
		Subtotal	0.447	-		-		0.886		-		0.886	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.352	0.654		0.847		1.057		-		1.057	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *Aircraft Avionics*	**Project (Number/Name)** VU3 / *Networking And Mission Planning*



Note

The Aviation Mission Common Server Modular Capabilities Demonstration Other Transaction Authority awarded 24 June 20. The schedule depicts the OTA's 5 Individual phases and their associated award and effort duration.

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *Aircraft Avionics*	**Project (Number/Name)** VU3 / *Networking And Mission Planning*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Develop IDM Software	4	2018	4	2018
AMCS Airworthiness Studies and Assessments	2	2019	2	2019
AMCS OTA Prototype Contract Award Phase 1	3	2020	3	2020
AMCS Alternative Systems Review (ASR)	4	2020	1	2021
AMCS OTA Prototype Contract Award Phase 2	1	2021	1	2021
AMCS preliminary Design Review (PDR)	1	2021	2	2021
AMCS OTA Prototype Contract Award Phase 3	3	2021	3	2021
AMCS Critical Design Review (CDR)	3	2021	3	2022
AMCS OTA Prototype Contract Award Phase 4	3	2022	3	2022
AMCS Deomonstrations	3	2022	4	2022
AMCS OTA Prototype Contract Award Phase 5	4	2022	4	2022
AMCS Aircraft Demo, Testing and Box Level Airworthiness Qualification	4	2022	2	2023
AMCS Application Integration and Prototype Qualification	1	2023	4	2023
AMCS Software and Hardware Capability Upgrades	2	2023	4	2033

Note

ACN: Aircraft Notebook
ADEC: Aviation Data Exploitation Capability
AMCS: Aviation Mission Common Server
AMPS: Aviation Mission Planning System
EES: Environment Exploitation System
IDM: Improved Data Modem