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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>
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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	-	38.298	58.165	41.171	0.000	41.171	11.754	11.456	11.420	7.593	Continuing	Continuing
672832: <i>MEECN System Improvements</i>	-	0.281	0.971	1.023	0.000	1.023	1.045	1.065	1.087	0.008	Continuing	Continuing
672835: <i>Common VLF/LF Receiver Inc 2</i>	-	17.032	37.465	20.766	0.000	20.766	10.709	10.391	10.333	7.585	Continuing	Continuing
676030: <i>Global ASNT Inc 2</i>	-	20.985	19.729	19.382	0.000	19.382	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Nuclear Deterrence Operations (NDO) is an Air Force Core Function. Within this core function, Nuclear Command and Control (NC2) is the exercise of authority and direction by the President, as Commander in Chief, through established command lines, over nuclear weapon operations of military forces. The President's authority and direction are exercised through the Nuclear Command and Control System (NCCS). The NCCS is the designated combination of flexible and enduring elements including facilities, equipment, communications, procedures, personnel, and the structure in which these elements are integrated, all of which are essential for planning, directing, and controlling nuclear weapon operations.

The Minimum Essential Emergency Communications Network (MEECN) portfolio modernizes the systems necessary to effectively provide assured communications connectivity between the President and the strategic deterrence forces in stressed environments.

MEECN System Improvements (MSI) is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), United States Space Force (USSF), Air Mobility Command (AMC), Air Force Special Operations Command (AFSOC), US Strategic Command (USSTRATCOM), and the US Navy (USN)) to monitor and assess the performance of existing NC3 systems and develop recommendations for strategic and tactical architecture upgrades, requirements, and issues based on available and emerging technologies. MSI is used to conduct technology testing; analyze technology strategies; conduct requirement trade space analysis, technology maturation and risk reduction efforts, and mission analysis; and build technology roadmaps as proactive support to the NC3 community. MSI performs analysis, integration, and testing activities for the NC3 Weapon System.

Common Very Low Frequency/Low Frequency (VLF/LF) Receiver (CVR) Increment 2 (CVR Inc 2) Program will develop and produce an open systems architecture (OSA) compliant, advanced, adaptable VLF/LF receiver for the NC3 weapon system, AN/USQ-225. The program will continue new MEECN waveform specification maturation for USAF and USN implementation to VLF systems to improve reception range and accuracy while ultimately shortening required transmission time. As the USAF VLF receiver integrator, the VLF Enterprise Program Office will assume responsibility for VLF sustainment to include configuration management of the CVR Increment 1 (CVRi1) materiel solution while also providing management support to the B-52 VLF Modernization Program for its procurement and production of the directed VLF receiver. The VLF Enterprise Program Office will provide the same management support to other legacy NC3 platforms' VLF receiver requirements. The Program will complete its investment in pre-EMD VLF modernization activities as directed by the VLF Enterprise Program Office to advance technology maturation to be made available for incorporation into current and next generation VLF reception architectures and integrated with Joint All Domain Command and Control (JADC2).

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	
<p>Global Aircrew Strategic Network Terminal (Global ASNT) program replaces inadequate, unsustainable strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces and Munitions Support Squadrons (MUNSS) and for Mobile Support Teams (MSTs). Global ASNT is a ground-based system that will provide survivable, secure communication paths to receive Emergency Action Messages (EAMs), Force Management messages, and Force Direction messages and disseminate them to bomber, tanker, and reconnaissance aircrews.</p> <p>Global ASNT is being fielded in separate capability increments. Global ASNT Increment 1 (Inc. 1) includes early system engineering support for the planning and development for the future Global ASNT Increments.</p> <p>Global ASNT Inc. 1 fields required Extremely High Frequency/Advanced Extremely High Frequency (EHF/AEHF) capabilities and replaces inadequate, unsustainable strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals and Secure, Mobile, Anti-Jam, Reliable, Tactical - Terminal (SMART-T) equipment. FY19 was the last year of RDT&E funding.</p> <p>Global ASNT Increment 2 delivers a replacement Aircrew Alerting System (AAS) consisting of personal and general area alerting as well as Ultra High Frequency (UHF) line of sight (LOS) voice communications to bomber, tanker, and reconnaissance aircraft. Increment 2 replaces aging legacy Electromagnetic Pulse Hardened Dispersal Communication (EHDC) and Aircrew Alerting Communications Electromagnetic Pulse (AACE) systems.</p> <p>The total cost of the Global ASNT Inc 2 Middle Tier of Acquisition effort is 105 million, including RDT&E and procurement of prototype units. The Global ASNT Inc 2 is fully funded across the Future Years Defense Program.</p> <p>This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605831F and 0605833F. In FY2021 1.593M was expended for civilian pay expenses in this program element, in FY22 1.229M is forecasted for civilian pay expenses in this program element.</p> <p>This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Air Force	Date: April 2022
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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>
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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	44.640	20.700	0.000	0.000	0.000
Current President's Budget	38.298	58.165	41.171	0.000	41.171
Total Adjustments	-6.342	37.465	41.171	0.000	41.171
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	37.465			
• Reprogrammings	-4.885	0.000			
• SBIR/STTR Transfer	-1.457	0.000			
• Other Adjustments	0.000	0.000	41.171	0.000	41.171

Change Summary Explanation

The FY 2022 President's Budget submittal did not reflect FY 2023 through FY 2026 funding. Therefore, an explanation of the change between the two budget positions for FY2023 cannot be made in a relevant manner.

FY21: -4.885M omnibus reprogramming; -1.457M SBIR reduction

FY22: AF requested transfer of \$37.465M via technical adjustment from Line #46 (SAOC) to CVRi2

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force										Date: April 2022		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>				Project (Number/Name) 672832 / <i>MEECN System Improvements</i>			
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
672832: <i>MEECN System Improvements</i>	-	0.281	0.971	1.023	0.000	1.023	1.045	1.065	1.087	0.008	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

MSI is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), United States Space Force (USSF), Air Mobility Command (AMC), Air Force Special Operations Command (AFSOC), US Strategic Command (USSTRATCOM), and the US Navy) to monitor and assess the performance of existing NC3 systems and develop recommendations for strategic and tactical architecture upgrades, requirements, and issues based on available and emerging technologies. MSI is used to conduct technology testing; analyze technology strategies; conduct requirement trade space analysis, technology maturation and risk reduction efforts, and mission analysis; and build technology Roadmaps as proactive support to the NC3 community. MSI performs analysis, integration, and testing activities for the NC3 Weapon System.

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

	FY 2021	FY 2022	FY 2023
Title: MEECN System Improvements	0.281	0.971	1.023
Description: MSI is used to conduct technology testing, analyze technology strategies, conduct requirement trade space analysis, technology maturation and risk reduction efforts, and mission analysis, and build technology Roadmaps as proactive support to the NC3 community. MSI may also be used to execute test bed activities and exercise participation related to Advanced Battle Management System (ABMS) and JADC2 demonstrations and execute contracts in support of next generation NC3 systems and sub-systems			
FY 2022 Plans:			
- Conduct analysis of the performance/condition of NC3 platforms' VLF receiver Group A elements (e.g., antennas, power source, cabling/wiring, human machine interface (HMI), etc.)			
- Continue to refresh NC3 Architecture Roadmap			
- Award and execute Johns Hopkins University/Advanced Physics Laboratory (JHU/APL) VLF studies (3)			
(1) VLF ground characterization study of several B-2 aircraft in an operational environment			
(2) Characterization of VLF/LF antenna performance through Modeling & Simulation (M&S) for Transverse Magnetic (TM) only antenna vs Transverse Magnetic (TM) /Transverse Electric (TE) antennas in benign and disturbed environments			
(3) Establish methodology for an in-depth cyber evaluation study of the fielded CVRi1 radio			
- Continue development for project Lofted Antenna Emergency Relay Node (LANTERN) with MIT LL			
- Complete MSI Summary Report			
- Perform analysis of engineering issues and technology insertion			

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022		
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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<ul style="list-style-type: none"> - Conduct technology maturation and risk reduction activities <p>FY 2023 Plans:</p> <ul style="list-style-type: none"> - Conduct analysis of the performance/condition of NC3 platforms' VLF receiver Group A elements (e.g., antennas, power source, cabling/wiring, human machine interface (HMI), etc.) - Continue to refresh NC3 Architecture Roadmap - Continue development of Project LANTERN with MIT/LL - Complete MSI Summary Report - Perform analysis of engineering issues and technology insertion - Conduct technology maturation and risk reduction activities - Evaluate integrated technology, representative modes, and prototype systems - Perform analysis, integration, and testing activities - Conduct NC3 Connectivity Performances updates - Develop messaging, waveform, mode, and system standards and documentation - Conduct studies, analysis, proof-of-concept, and prototyping for the assessment and modernization of the AF NC3 Weapon System (AN/ USQ-225) <p>FY 2022 to FY 2023 Increase/Decrease Statement: Funding increased due to inflation</p>				
Accomplishments/Planned Programs Subtotals		0.281	0.971	1.023
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
MSI will continue to evaluate the performance of the NC3 Weapon System by assessing performance and technology areas for improvement with the assistance of expert technical support from FFRDCs, UARCs, and may include competitively awarded technical support contracts with industry. MITRE, Massachusetts Institute of Technology (MIT) Lincoln Labs, and Johns Hopkins University/Applied Physics Laboratory (JHU/APL) will continue to support NC3 Weapon System Architecture Roadmap updates.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 672832 / <i>MEECN System Improvements</i>
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MSI NC3 Roadmap / NC3 Connectivity Performances Update	Various	JHU/APL : Laurel, MD	-	0.000	Sep 2021	0.374	Jun 2022	0.345	Jan 2023	-		0.345	Continuing	Continuing	-
Antenna Study	Various	MIT/LL : Lexington, MA	-	0.131	Mar 2021	0.400	Jun 2022	0.300	Jan 2023	-		0.300	Continuing	Continuing	-
Subtotal			-	0.131		0.774		0.645		-		0.645	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Support	Various	Various : Various	-	0.150	Nov 2020	0.194	Apr 2022	0.375	Apr 2023	-		0.375	Continuing	Continuing	-
Subtotal			-	0.150		0.194		0.375		-		0.375	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MSI PSC (Eng/Acq Spt/Travel/IMPAC)	Various	Various : Various	-	0.000	Nov 2020	0.003	Mar 2022	0.003	Mar 2023	-		0.003	Continuing	Continuing	-
Subtotal			-	0.000		0.003		0.003		-		0.003	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			-	0.281	0.971	1.023	-	1.023	Continuing	Continuing	N/A

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 672832 / <i>MEECN System Improvements</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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

<i>MEECN System Improvement</i>	
MEECN System Improvement	
MSI Summary Report - FY22	
MSI Summary Report - FY23	
MSI Summary Report - FY24	
MSI Summary Report - FY25	
MSI Summary Report - FY26	

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 672832 / <i>MEECN System Improvements</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>MEECN System Improvement</i>				
MEECN System Improvement	1	2022	4	2027
MSI Summary Report - FY22	1	2023	1	2023
MSI Summary Report - FY23	1	2024	1	2024
MSI Summary Report - FY24	1	2025	1	2025
MSI Summary Report - FY25	1	2026	1	2026
MSI Summary Report - FY26	1	2027	1	2027

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force										Date: April 2022		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>				Project (Number/Name) 672835 / <i>Common VLF/LF Receiver Inc 2</i>			
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
672835: <i>Common VLF/LF Receiver Inc 2</i>	-	17.032	37.465	20.766	0.000	20.766	10.709	10.391	10.333	7.585	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Common Very Low Frequency/Low Frequency (VLF/LF) Receiver (CVR) Increment 2 (CVR Inc 2) Program will develop and produce an open systems architecture (OSA) compliant, advanced, adaptable VLF/LF receiver for the NC3 weapon system, AN/USQ-225. The program will also lead development of the interoperable New MEECN waveform specification for USAF and USN implementation to VLF systems to improve reception range and accuracy while ultimately shortening required transmission time. As the USAF VLF receiver integrator, the VLF Enterprise Program Office will assume responsibility for VLF sustainment to include configuration management of the CVR Increment 1 (CVRi1) materiel solution while also providing management support to the B-52 VLF Modernization Program for its procurement and production of the directed VLF receiver. The VLF Enterprise Program Office will provide the same management support to other legacy NC3 platforms' VLF receiver requirements. The program will complete its investment in pre-EMD VLF modernization activities as directed by the VLF Enterprise Program Office to advance technology maturation to be made available for incorporation into current and next generation VLF reception architectures and integrated with Joint All Domain Command and Control (JADC2).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605831F and 0605833F. In FY2021 \$1.593M was expended for civilian pay expenses in this program element. In FY2022 \$1.229M is forecasted for civilian pay expenses in this program element.

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

	FY 2021	FY 2022	FY 2023
Title: CVR Inc 2	17.032	37.465	20.766
Description: Post-MDD and progression to prototype development employing a Middle Tier Acquisition (MTA) approach.			
FY 2022 Plans:			
- Evaluate industry proposals for CVRi2			
- Award Delivery Order and execute contract			
- Complete Final Test and Evaluation Strategy (TES) and initiate Test Planning			
- Hold System Requirements Review (SRR)/System Functional Review (SFR)			
FY 2023 Plans:			
- Hold CVRi2 Preliminary Design Review (PDR)			
- Provide CVRi2 digital models to lead platform (Survivable Airborne Operations Center (SAOC)) for its Milestone B/Contract Award			

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 672835 / <i>Common VLF/LF Receiver Inc 2</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
- Begin Integrated Test Phase for Developmental Testing - Hold CVRi2 Critical Design Review (CDR)			
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease due to less PSC requirements in FY23			
Accomplishments/Planned Programs Subtotals	17.032	37.465	20.766

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
• APAF 05 03031313F: <i>CVRi2</i>	0.000	0.000	0.000	-	0.000	0.000	0.000	0.080	4.080	Continuing	Continuing

Remarks

N/A

D. Acquisition Strategy

Employing a Middle Tier Acquisition (MTA) Rapid Prototyping (RP) approach, CVR Inc 2 will use the Advanced Battle Management Systems (ABMS) Indefinite Delivery/ Indefinite Quantity (IDIQ) Broad Area Announcement (BAA) to release a fair opportunity proposal request (FOPR) in order to award a delivery order to develop an Open Systems Architecture (OSA)-compliant, advanced VLF/LF receiver prototype. The Survivable Airborne Operations Center (SAOC) is lead platform, and the system will be adaptable to other NC3 platforms. The program plans to transition to an MTA Rapid Fielding (RF) phase to compete a contract for production and fielding to meet SAOC timeline requirements.

Acquisition Strategy approved 27 Sep 21.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 672835 / <i>Common VLF/LF Receiver Inc 2</i>
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Early Development (TMRR/prototyping)	Various	Various : TBD	-	5.994	Jun 2021	18.934	Jun 2022	16.949	Jun 2023	-		16.949	Continuing	Continuing	-
Prime Contract ECOs	Various	Various : TBD	-	-		2.379	Jun 2022	-		-		-	Continuing	Continuing	-
MITRE (DMS)	Various	Various : Bedford, MA	-	1.791	Feb 2021	2.920	Sep 2022	0.000		-		0.000	Continuing	Continuing	-
GFE	Various	Various : Various	-	0.046		0.046	Aug 2022	-		-		-	Continuing	Continuing	-
NSA Certification	Various	Various : Fort Meade, MD	-	0.400	Jun 2021	0.355	Aug 2022	0.000		-		0.000	Continuing	Continuing	-
Subtotal			-	8.231		24.634		16.949		-		16.949	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Direct Cite Civilian Pay	Various	Various : Hanscom, MA	-	1.105	Sep 2021	1.331	Sep 2022	1.654	Sep 2023	-		1.654	Continuing	Continuing	-
Subtotal			-	1.105		1.331		1.654		-		1.654	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test and Evaluation	C/CPAF	Various : 96TW	-	0.234	Aug 2021	0.840	Feb 2023	0.843	Feb 2024	-		0.843	Continuing	Continuing	-
Subtotal			-	0.234		0.840		0.843		-		0.843	Continuing	Continuing	N/A

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 672835 / <i>Common VLF/LF Receiver Inc 2</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
CVR Inc. 2				
CVRi2 MTA ASP Rapid Prototyping	4	2021	4	2021
New WF Interoperability Demonstration	2	2022	2	2022
Fair Opportunity Proposal Request Release	2	2022	2	2022
CVRi2 Receive Proposals	2	2022	2	2022
CVRi2 Proposal Evaluation	2	2022	3	2022
CVRi2 Delivery Order Award	3	2022	3	2022
ADM Program Start	3	2022	3	2022
CVRi2 Rapid Prototyping Development	3	2022	4	2025
CVRi2 SRR/SFR	4	2022	4	2022
CVRi2 Preliminary Design Review (PDR)	2	2023	2	2023
CVRi2 Critical Design Review (CDR)	4	2023	4	2023
Technical Readiness Level 7 Demonstration	4	2025	4	2025
ADM Program Complete	4	2025	4	2025

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i>
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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
676030: <i>Global ASNT Inc 2</i>	-	20.985	19.729	19.382	0.000	19.382	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Global ASNT Inc 2 replaces aging legacy strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces, Munitions Support Squadrons (MUNSS), and Mobile Support Teams (MSTs). Global ASNT Inc 2 is a ground-based system that will provide survivable, secure communication paths to disseminate Emergency Action Messages (EAMs) to bomber, tanker, and reconnaissance aircrews.

Global ASNT Inc 2 is being fielded in 3 separate capability incremental blocks; all 3 blocks are High-Altitude Electro-Magnetic Pulse (HEMP) and Radiation Hazard (RADHAZ) protected.

Global ASNT Inc 2 Block 1 delivers a replacement Aircrew Alerting System (AAS) consisting of Ultra High Frequency (UHF) personal and general alerting equipment replacing EHDC and AACE systems. Global ASNT Inc 2 Blocks 2 and 3 provide High Frequency (HF) capabilities and other enhancements, Block 2 and 3 requirements are currently deferred to focus on the highest priority needs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605831F and 0605833F. In FY2021 1.593M was expended for civilian pay expenses in this program element, in FY22 1.229M is forecasted for civilian pay expenses in this program element.

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

	FY 2021	FY 2022	FY 2023
Title: Global ASNT Inc 2, Block 1	20.985	19.729	19.382
Description: Middle Tier Acquisition - Rapid Prototyping			
FY 2022 Plans:			
- Begin and complete Phase 1 (Non-HEMP) prototype development			
- Non-HEMP DT and OT unit development and delivery			
- Non-HEMP unit training			
- Non-HEMP environmental qualification			
- Non-HEMP DT and OT Testing			
- Begin Phase 2 (HEMP) prototype development			
- Complete Phase 1 (Non-HEMP) site prep in support of first two fixed site installs			
FY 2023 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force	Date: April 2022
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
HEMP DT and OT unit development and delivery Non-HEMP retrofit kit development HEMP DT and OT Testing			
<i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> Funding decrease due to transition to production/fielding in FY23.			
Accomplishments/Planned Programs Subtotals	20.985	19.729	19.382

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPAF 05 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	0.000	0.000	14.805	-	14.805	43.635	81.754	55.128	0.010	Continuing	Continuing

Remarks

D. Acquisition Strategy
 GASNTi2 Block 1 is leveraging the Rapid Prototyping MTA pathway for development and the program plans to transition to a Rapid Fielding MTA.

 Pending success of Block 1, Blocks 2 and 3 will utilize the same MTA Prototype acquisition approach to continue rapid development and delivery of capabilities to the warfighter.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i>
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development	C/CPAF	Various : Bedford, MA	-	13.965	Aug 2021	13.475	Dec 2021	12.966	Dec 2022	-		12.966	Continuing	Continuing	-
Subtotal			-	13.965		13.475		12.966		-		12.966	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Direct Cite Civilian Pay	Various	Various : Bedford, MA	-	0.488	Oct 2020	1.229	Oct 2021	1.255	Oct 2022	-		1.255	Continuing	Continuing	-
Information Assurance	SS/CPAF	Booz Allen Hamilton : Bedford, MA	-	0.082	Jul 2021	0.080	Mar 2022	0.082	Apr 2023	-		0.082	Continuing	Continuing	-
Subtotal			-	0.570		1.309		1.337		-		1.337	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test Planning	PO	96 TW : Eglin AFB, FL	-	0.351	May 2021	0.653	Apr 2022	0.841	Mar 2023	-		0.841	Continuing	Continuing	-
Subtotal			-	0.351		0.653		0.841		-		0.841	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PSC - (Eng/Acq Support, Travel)	C/CPAF	Various : Bedford, MA	-	2.434	Oct 2020	2.054	Oct 2021	2.065	Oct 2022	-		2.065	Continuing	Continuing	-
PSC-MITRE	C/CPAF	Not specified. : TBD	-	3.665	Oct 2020	2.238	Oct 2021	2.173	Oct 2022	-		2.173	Continuing	Continuing	-
Subtotal			-	6.099		4.292		4.238		-		4.238	Continuing	Continuing	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 676030 / <i>Global ANST Inc 2</i>

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
Global ANST Inc 2																												
ASP Approved	■																											
Solicitation Released		■																										
Proposal Evaluations Completed		■	■																									
Agreement Award				■																								
RDT&E (Non-HEMP)					■	■	■	■																				
RDT&E (HEMP)					■	■	■	■	■	■	■	■																
Production																												
RAA IOC (Non-HEMP)																												
RAA IOC (HEMP)																												
RAA FOC (HEMP)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Global ANST Inc 2				
ASP Approved	1	2021	1	2021
Solicitation Released	2	2021	2	2021
Proposal Evaluations Completed	2	2021	3	2021
Agreement Award	4	2021	4	2021
RDT&E (Non-HEMP)	1	2022	4	2022
RDT&E (HEMP)	1	2022	2	2024
Production	1	2023	3	2026
RAA IOC (Non-HEMP)	1	2024	1	2024
RAA IOC (HEMP)	3	2025	3	2025
RAA FOC (HEMP)	3	2026	3	2026