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

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 0604445F / <i>Wide Area Surveillance</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	0.000	2.687	0.000	8.018	0.000	8.018	0.000	0.000	0.000	0.000	0.000	10.705
675899: <i>Wide Area Surveillance</i>	0.000	2.687	0.000	8.018	0.000	8.018	0.000	0.000	0.000	0.000	0.000	10.705

Program MDAP/MAIS Code: 519

A. Mission Description and Budget Item Justification

Wide Area Surveillance (WAS) consists of two advanced sensor systems, the Stateside Affordable Radar System (STARS) and Scorpion, incorporated into a single WAS System. Based on existing technological capabilities, WAS detects/tracks low, slow and other asymmetrical threats in the airspace and meets the user needs by sensing stressing airborne targets in complex environments with affordable sensors. The sensor outputs will be incorporated into the Battle Control Systems-Fixed (BCS-F) air picture and utilized as the North American Aerospace Defense Command/ Northern Command (NORAD/NORTHCOM) Command and Control (C2) air surveillance system of record.

Some aspects of the WAS program are classified. These will be provided on a need-to-know basis.

This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Wide Area Surveillance capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY22 0.000M was expended for civilian pay expenses in this program element, and in FY23 0.000M is forecasted for civilian pay expenses in this program element.”

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.

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B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	2.760	0.000	0.000	0.000	0.000
Current President's Budget	2.687	0.000	8.018	0.000	8.018
Total Adjustments	-0.073	0.000	8.018	0.000	8.018
• 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	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.073	0.000			
• Other Adjustments	0.000	0.000	8.018	0.000	8.018

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Air Force										Date: March 2023		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0604445F / <i>Wide Area Surveillance</i>				Project (Number/Name) 675899 / <i>Wide Area Surveillance</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
675899: <i>Wide Area Surveillance</i>	0.000	2.687	0.000	8.018	0.000	8.018	0.000	0.000	0.000	0.000	0.000	10.705
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Wide Area Surveillance (WAS) consists of two advanced sensor systems, the Stateside Affordable Radar System (STARS) and Scorpion, incorporated into a single WAS System. Based on existing technological capabilities, WAS detects/tracks low, slow and other asymmetrical threats in the airspace and meets the user needs by sensing stressing airborne targets in complex environments with affordable sensors. The sensor outputs are incorporated into the Battle Control Systems-Fixed (BCS-F) air picture and utilized as the North American Aerospace Defense Command/ Northern Command (NORAD/NORTHCOM) Command and Control (C2) air surveillance system of record. This effort is for a S1 Block 2 for the STARS system. FY24 funds will support development, fielding, integration, and testing activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY22 0.000M was expended for civilian pay expenses in this program element, and in FY23 0.000M is forecasted for civilian pay expenses in this program element.

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: STARS (S1) Block 2 Modernization	2.687	0.000	8.018	0.000	8.018
Description: Development, Testing & Fielding					
FY 2023 Plans: There is no approved funding in FY23 and will be treated as a skip year.					
FY 2024 Base Plans: Activities include, but are not limited to: - Continue S1 Block 2 Minimum Viable Product (MVP) engineering and development. - S1 Block 2 MVP fielding, integration, and testing. - Engineering, development, and testing to upgrade MVP to full S1 Block 2 system.					
FY 2024 OCO Plans: N/A					
FY 2023 to FY 2024 Increase/Decrease Statement:					

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Funding increased to support development, fielding and integration of Block 2 MVP system as well as the resulting testing activities and efforts required to obtain a full Block 2 system.					
Accomplishments/Planned Programs Subtotals	2.687	0.000	8.018	0.000	8.018

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
• OPAF 03 Line Item 834240: <i>Wide Area Surveillance</i>	34.863	29.150	11.594	-	11.594	8.503	8.281	8.279	0.076	243.071	343.817
• OPAF 05 861900: <i>Spares and repair parts</i>	0.013	5.059	5.440	0.000	5.440	5.519	5.684	5.809	5.925	0.000	33.449

Remarks

D. Acquisition Strategy

The Wide Area Surveillance (WAS) strategy is a single step acquisition approach for full capability to develop, produce, and field highly capable and sustainable advanced sensors in the National Capital Region. Science & technology contracts were let prior to the Engineering and Manufacturing Development phase for both subsystems. The Cost Plus Fixed-Fee (CPFF) contract for Stateside Affordable Radar System (STARS) was awarded to a single developer to design, build, integrate, and test the STARS system. A subsequent task order was awarded (Jul 17) to include pre-operational site support. The CPFF contract for Scorpion was awarded (Aug 17) to a single developer to complete the design, build, integration, and testing of the Scorpion system, and conduct pre-operational site support. The pre-operational portion of the contract for the Scorpion system transitioned to Interim Contract Support (ICS) in Dec 2018, STARS system transitioned to ICS in June 2019. The ICS portion of both the Scorpion system and the STARS system contracts transitioned to Contractor Logistics Support (CLS) in July 2021. This strategy includes a single delivery approach with 5 STARS and 84 Scorpion systems for a total of 89 sub-systems delivered to achieve FOC. RDT&E funds support a Block 2 version of the fielded STARS system.

Air Force Program Executive Officer (PEO) DIGITAL (AFPEO DIGITAL) is the PEO for WAS. Air Force Life Cycle Management Center (AFLCMC) is the Contracting Authority for the WAS program and provides contracts, legal, and comptroller support. Air Force Program Executive Officer (PEO) DIGITAL (AFPEO DIGITAL) is the program's Milestone Decision Authority (MDA).

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force **Date:** March 2023

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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Wide Area Surveillance (WAS) S1 Block 2 NRE	Various	Raytheon : El Segundo, CA	0.000	2.315	Jul 2022	-		0.308	Mar 2024	-		0.308	0.000	2.623	0.000
Wide Area Surveillance (WAS) S1 Block 2 Development	Various	Raytheon : El Segundo, CA	0.000	0.372	Oct 2022	-		5.516	Mar 2024	-		5.516	0.000	5.888	-
Subtotal			0.000	2.687		-		5.824		-		5.824	0.000	8.511	N/A

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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 Support	Various	46 Test Squadron : Eglin AFB, FL	0.000	0.000	Mar 2022	-		1.047	Jan 2024	-		1.047	0.000	1.047	-
Subtotal			0.000	0.000		-		1.047		-		1.047	0.000	1.047	N/A

Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
A&AS	Various	AFCLCMC/HBDB : Hanscom AFB, MA	0.000	0.000	Jul 2022	-		1.147	Jul 2024	-		1.147	0.000	1.147	-
Subtotal			0.000	0.000		-		1.147		-		1.147	0.000	1.147	N/A

			Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	2.687	-	8.018	-	8.018	0.000	10.705	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Air Force **Date:** March 2023

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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

Wide Area Surveillance	
STARS Block 2 Development Effort	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force		Date: March 2023
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Wide Area Surveillance				
STARS Block 2 Development Effort	1	2022	4	2025