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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0604445F I Wide Area Surveillance							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	24.475	50.486	16.247	0.000	0.000	0.000	0.000	0.003	0.000	0.001	0.000	91.212
675895: Wide Area Surveillance*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.001	0.000	0.004
675899: Wide Area Surveillance	24.475	50.486	16.247	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	91.208

Program MDAP/MAIS Code: 519

*This project's R-2a exhibit has been suppressed due to funding not beginning until after FY 2019

Note

In FY2017, Project 675895, Wide Area Surveillance was terminated.

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 will detect/track low, slow and other asymmetrical threats in the airspace and meet the user needs of 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 and will be provided on a need-to-know basis.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver WAS weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, and 0605898F.

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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Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 0604445F I Wide Area Surveillance			
B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	46.695	16.247	0.000	0.000	0.000
Current President's Budget	50.486	16.247	0.000	0.000	0.000
Total Adjustments	3.791	0.000	0.000	0.000	0.000
• 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	5.500	0.000			
• SBIR/STTR Transfer	-1.709	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000
Change Summary Explanation					
- FY17 \$5.5M RDT&E increase for pre-operational support, development and integration					

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0604445F / Wide Area Surveillance				Project (Number/Name) 675899 / Wide Area Surveillance			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
675899: Wide Area Surveillance	24.475	50.486	16.247	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	91.208
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 will detect/track low, slow and other asymmetrical threats in the airspace and meet the user needs of 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.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver WAS weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, and 0605898F.

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

	FY 2017	FY 2018	FY 2019
Title: Development, Test & Fielding	50.486	16.247	0.000
Description: Development, Test & Fielding			
FY 2018 Plans: Include but are not limited to: - Continue development, integration and testing of the Stateside Affordable Radar System (STARS) in preparation for Milestone C approval. - Continue development, integration and testing of a Regional Support Facility supporting both STARS and Scorpion systems. - Provide pre-operational support to STARS and Scorpion systems. - Continue to integrate and test track feeds into system of record, Battle Control System-Fixed. - Continue to establish site specific requirements to include but not limited to security, maintenance, material shipping and site/ environmental analysis for both STARS and Scorpion. - Develop technical data and maintenance manuals, continue to study, analyze, and mitigate risk activities to support Full Operational Capability (FOC) objectives, execute Test and Evaluation (T&E) and continue Reliability, Availability, and Maintainability (RAM) data collection. - Develop/test software and integrate builds to feed into the system of record, Battle Control Systems-Fixed.			
FY 2019 Plans:			

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Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 0604445F / Wide Area Surveillance				Project (Number/Name) 675899 / Wide Area Surveillance				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2017	FY 2018	FY 2019
Complete development, integration and testing of the Stateside Affordable Radar System (STARS) and Scorpion.												
FY 2018 to FY 2019 Increase/Decrease Statement: Program transitioned to production in FY18 and FY19.												
Accomplishments/Planned Programs Subtotals										50.486	16.247	0.000
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost	
• OPAF 03 Line Item 834240: Wide Area Surveillance	6.943	62.087	92.104	-	92.104	109.597	27.715	28.205	28.708	818.915	1,174.274	
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 led prior to the Engineering and Manufacturing Development phase for both sub-systems. The ongoing 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 ongoing 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. This strategy includes a single delivery approach with 11 STARS and 18 Scorpion systems for a total of 29 sub-systems delivered to achieve FOC. The pre-operational contract for the Scorpion system will transition to Interim Contract Support (ICS) in FY2018, STARS system will award ICS in FY19.												
Air Force Program Executive Officer (PEO) for Battle Management (AFPEO BM) 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. The Secretary of the Air Force for Acquisition (SAF/AQ) is the program's Milestone Decision Authority (MDA).												
E. Performance Metrics												
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Air Force												Date: February 2018			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0604445F / Wide Area Surveillance				Project (Number/Name) 675899 / Wide Area Surveillance					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Wide Area Surveillance (WAS)	Various	Various : Various	12.296	39.451	Sep 2017	9.930	May 2018	-		-		-	0.000	61.677	46.000
Subtotal			12.296	39.451		9.930		-		-		-	0.000	61.677	N/A
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Direct Mission	Various	Various : Various	3.159	1.080	Aug 2017	0.000		-		-		-	0.000	4.239	-
Subtotal			3.159	1.080		0.000		-		-		-	0.000	4.239	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Test Support	Various	46 Test Squadron : Eglin AFB, FL	0.500	1.825	Aug 2017	1.890	Mar 2018	-		-		-	0.000	4.215	-
Subtotal			0.500	1.825		1.890		-		-		-	0.000	4.215	N/A
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Program Management Administration	Various	AFLCMC/HBDB : Hanscom AFB, MA	8.520	8.130	Aug 2017	4.427	Oct 2017	-		-		-	0.000	21.077	-
Subtotal			8.520	8.130		4.427		-		-		-	0.000	21.077	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			24.475	50.486		16.247		-		-		-	0.000	91.208	N/A

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Appropriation/Budget Activity				R-1 Program Element (Number/Name)		Project (Number/Name)				
3600 / 7				PE 0604445F / Wide Area Surveillance		675899 / Wide Area Surveillance				
		Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Remarks										

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Air Force																Date: February 2018			
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>			

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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																												
Scorpion Pre-operational Support																												
STARS Pre-operational Support																												
Initial Operational Test and Evaluation (IOT&E)																												
Milestone C (July 2018)																												
Initial Operation Capability (IOC)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Air Force			Date: February 2018
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>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Wide Area Surveillance</i>				
Scorpion Pre-operational Support	4	2017	4	2018
STARS Pre-operational Support	4	2017	4	2018
Initial Operational Test and Evaluation (IOT&E)	3	2018	4	2018
Milestone C (July 2018)	4	2018	4	2018
Initial Operation Capability (IOC)	4	2018	4	2018