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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force **Date:** February 2016

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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	4.836	2.000	22.577	46.695	0.000	46.695	83.044	77.003	27.155	27.642	0.000	290.952
675895: <i>Wide Area Surveillance</i>	4.836	2.000	22.577	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29.413
675899: <i>Wide Area Surveillance</i>	0.000	0.000	0.000	46.695	0.000	46.695	83.044	77.003	27.155	27.642	0.000	261.539

Program MDAP/MAIS Code: 519

Note

- In FY2017, Special Program efforts will transfer to PE 0604445F, Wide Area Surveillance, Project 675899, Wide Area Surveillance in order to centrally fund and manage efforts
- In FY2017, Project 675895, Wide Area Surveillance will terminate

A. Mission Description and Budget Item Justification

Wide Area Surveillance (WAS) consists of sensor programs. WAS will develop, integrate and test capabilities to provide warfighters the ability to detect airborne threats. Activities will include studies and analysis to support current and future program planning and development. Some aspects of the WAS program are classified and will be provided on a need-to-know basis.

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.

B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	2.000	24.577	9.529	0.000	9.529
Current President's Budget	2.000	22.577	46.695	0.000	46.695
Total Adjustments	0.000	-2.000	37.166	0.000	37.166
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-2.000			
• 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	0.000	0.000			
• Other Adjustments	0.000	0.000	37.166	0.000	37.166

Change Summary Explanation

- FY2016 \$2.0M Funds excess to need

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- FY2017 \$37.166M reflects a transition to Project 675899, Wide Area Surveillance		

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Air Force										Date: February 2016		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0604445F / <i>Wide Area Surveillance</i>				Project (Number/Name) 675895 / <i>Wide Area Surveillance</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
675895: <i>Wide Area Surveillance</i>	4.836	2.000	22.577	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29.413
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

- In FY2017, Project 675895, Wide Area Surveillance will terminate
- In FY 2017, Special Program efforts will transfer to PE 0604445F, Wide Area Surveillance, Project 675899, Wide Area Surveillance in order to centrally fund and manage efforts

A. Mission Description and Budget Item Justification

Wide Area Surveillance (WAS) consists of sensor programs. WAS will develop, integrate and test capabilities to provide warfighters the ability to detect airborne threats. Activities will include studies and analysis to support current and future program planning and development. Some aspects of the WAS program are classified and will be provided on a need-to-know basis. Contact SAF/AQI for further information.

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.

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

	FY 2015	FY 2016	FY 2017
Title: Development, Test & Fielding	2.000	22.577	-
Description: Development, Test & Fielding			
FY 2015 Accomplishments: - Activities included studies, analysis, and risk mitigation efforts to support test, modeling and simulation, system engineering, and site specific requirements, such as, but were not limited to: security, site maintenance, equipment maintenance, material shipping, site analysis/studies & environmental analysis/studies			
FY 2016 Plans: Activities include, but are not limited to: - Developing, testing and installation of sensors - Continuing studies, analysis, and risk mitigation activities to support testing, modeling and simulation, system engineering analysis and site specific requirements, such as security, site maintenance, equipment maintenance, material shipping, site analysis/studies & environmental analysis/studies - Integrating and testing track feeds into systems of record, Battle Control System-Fixed			
Accomplishments/Planned Programs Subtotals	2.000	22.577	-

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0604445F / <i>Wide Area Surveillance</i>	Project (Number/Name) 675895 / <i>Wide Area Surveillance</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDTE: BA07: PE 0604445J: <i>Wide Area Surveillance</i>	53.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	83.000

Remarks

- Total cost includes FY14 \$30.0M funding

D. Acquisition Strategy

The 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 Capitol Region. A Science & Technology contract was let during the Engineering and Manufacturing Development (EMD) phase for both sub-systems. The EMD contract for STARS was awarded to a single developer to complete the design, build, integration, and test of the STARS system. A follow on sole source contract will be awarded to the STARS contractor long lead components and a full competition contract will be awarded for integration of the STARS sub-sub-system as part of Full Rate Production (FRP) following the FRP Decision Review. The EMD contract for Scorpion was awarded to a single developer to complete the design, build, integration, and test of the Scorpion system and conduct Interim Contractor Support (ICS). A full competition contract will be awarded for the Scorpion sub-system as part of Full Rate Production (FRP) following the FRP Decision Review.

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 Office of the Secretary of the Air Force for Acquisition (SAF/AQ) is the program's Milestone Decision Authority (MDA).

The STARS primary contract type for EMD is a Cost Plus Fixed Fee (CPFF) contract while the Scorpion primary contract type for EMD is also a CPFF and includes ICS. Upon MDA approval at MS C, the Procuring Contracting Officer (PCO) will utilize for FRP a primary contract type of Firm Fixed Price (FFP) for both the STARS integration and another FFP for the Scorpion subsystem due to stable requirements and low risk of changes in scope.

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 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0604445F / <i>Wide Area Surveillance</i>	Project (Number/Name) 675895 / <i>Wide Area Surveillance</i>
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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			
WAS	Various	Various : Various	0.000	0.672	Jan 2016	17.135	Nov 2015	0.000		0.000		0.000	0.000	17.807	-
Subtotal			0.000	0.672		17.135		0.000		0.000		0.000	0.000	17.807	-

Remarks
- \$53.0M was executed in PE 0604445J in FY15

Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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 Mission	Various	Various : Various	0.000	0.000		1.824	Dec 2015	0.000		0.000		0.000	0.000	1.824	-
Subtotal			0.000	0.000		1.824		0.000		0.000		0.000	0.000	1.824	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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 TS : Eglin AFB, FL	0.000	0.540	Jan 2016	0.125	Jan 2016	0.000		0.000		0.000	0.000	0.665	-
Subtotal			0.000	0.540		0.125		0.000		0.000		0.000	0.000	0.665	-

Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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			
Program Management Administration	Various	AFLCMC/HBDD : Hanscom AFB, MA	4.836	0.788	Mar 2015	3.493	Oct 2015	0.000		0.000		0.000	0.000	9.117	-
Subtotal			4.836	0.788		3.493		0.000		0.000		0.000	0.000	9.117	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force								Date: February 2016			
Appropriation/Budget Activity 3600 / 7			R-1 Program Element (Number/Name) PE 0604445F / <i>Wide Area Surveillance</i>				Project (Number/Name) 675895 / <i>Wide Area Surveillance</i>				
	Prior Years	FY 2015	FY 2016		FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals	4.836	2.000	22.577		0.000	0.000	0.000	0.000	29.413	-	

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0604445F / <i>Wide Area Surveillance</i>	Project (Number/Name) 675895 / <i>Wide Area Surveillance</i>
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	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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

Program Office Stand Up																												
Program Transferred to Air Force (Oct 2015)																												
Development, Testing & Fielding																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0604445F / <i>Wide Area Surveillance</i>	Project (Number/Name) 675895 / <i>Wide Area Surveillance</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Program Office Stand Up	1	2015	4	2015
Program Transferred to Air Force (Oct 2015)	1	2016	1	2016
Development, Testing & Fielding	1	2016	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Air Force										Date: February 2016		
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
675899: <i>Wide Area Surveillance</i>	0.000	0.000	0.000	46.695	0.000	46.695	83.044	77.003	27.155	27.642	0.000	261.539
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

- In FY2017, Special Program efforts will transfer to PE 0604445F, Wide Area Surveillance, Project 675899, Wide Area Surveillance in order to centrally fund and manage efforts

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Wide Area Surveillance (WAS) consists of sensor programs. WAS will develop, integrate and test capabilities to provide warfighters the ability to detect airborne threats. Activities will include studies and analysis to support current and future program planning and development. Some aspects of the WAS program are classified and will be provided on a need-to-know basis.

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.

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

	FY 2015	FY 2016	FY 2017
Title: Development, Test & Fielding	-	-	46.695
Description: Development, Test & Fielding			
FY 2017 Plans:			
- Will continue development, testing, and installation of sensors			
- Will continue to integrate and test track feeds into systems of record, Battle Control System-Fixed			
- Will continue studies, analysis, and risk mitigation activities supporting test, modeling & simulation, system engineering, as well as site specific requirements, such as security, maintenance, material shipping, site/environmental analysis and studies			
- Some aspects of this program are classified and will be provided on a need-to-know basis			
Accomplishments/Planned Programs Subtotals	-	-	46.695

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• OPAF: BA03: Line Item # 834240: <i>Wide Area Surveillance</i>	0.000	0.000	6.943	0.000	6.943	0.000	0.000	0.000	0.000	-	-

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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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Remarks

- Some aspects of this program are classified and will be provided on a need-to-know

D. Acquisition Strategy

The 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 Capitol Region. A Science & Technology contract was let during the Engineering and Manufacturing Development (EMD) phase for both sub-systems. The EMD contract for Stateside Affordable Radar System (STARS) was awarded to a single developer to complete the design, build, integration, and test of the STARS system. A follow on sole source contract will be awarded to the STARS contractor long lead components. The EMD contract for Scorpion was awarded to a single developer to complete the design, build, integration, and test of the Scorpion system and conduct Interim Contractor Support (ICS).

The STARS primary contract type for EMD is a Cost Plus Fixed Fee (CPFF) contract while the Scorpion primary contract type for EMD is also a CPFF and includes ICS. Upon MDA approval at MS C, the Procuring Contracting Officer (PCO) will utilize a Firm Fixed Price (FFP) contract for both the STARS integration and another FFP for the Scorpion subsystem due to stable requirements and low risk of changes in scope.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force **Date:** February 2016

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>
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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			
WAS	Various	Various : Various	0.000	0.000		0.000		38.049	Sep 2017	0.000		38.049	180.260	218.309	-
Subtotal			0.000	0.000		0.000		38.049		0.000		38.049	180.260	218.309	-

Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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 Mission	Various	Various : Various	0.000	0.000		0.000		2.500	Oct 2016	0.000		2.500	10.000	12.500	-
Subtotal			0.000	0.000		0.000		2.500		0.000		2.500	10.000	12.500	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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 TS : Eglin AFB, FL	0.000	0.000		0.000		1.170	Oct 2016	0.000		1.170	4.680	5.850	-
Subtotal			0.000	0.000		0.000		1.170		0.000		1.170	4.680	5.850	-

Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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			
Program Management Administration	Various	AFLCMC/HBDD : Hanscom AFB, MA	0.000	0.000		0.000		4.976	Oct 2016	0.000		4.976	19.904	24.880	-
Subtotal			0.000	0.000		0.000		4.976		0.000		4.976	19.904	24.880	-

			Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	0.000	0.000	46.695	0.000	46.695	214.844	261.539	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Air Force **Date:** February 2016

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>
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	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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

Development, Testing & Fielding	
Initial Operational Capability (IOC) (Dec 2018)	

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force **Date:** February 2016

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>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Development, Testing & Fielding	1	2017	4	2021
Initial Operational Capability (IOC) (Dec 2018)	1	2019	1	2019

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