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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0605458F / Air & Space Ops Center 10.2 RDT&E							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	-	85.938	47.629	-	47.629	-	-	-	-	-	133.567
654945: AOC 10.2 Development	0.000	-	85.938	47.629	-	47.629	-	-	-	-	-	133.567
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Program MDAP/MAIS Code: N42												
Note In FY 2015, PE 0605458F, Air & Space Ops Center 10.2, project 654945, AOC 10.2 Development, efforts were transferred from PE 0604458F, Air & Space Ops Center, project 644945, AOC Increment 10.2 development, in order to align post Milestone B development efforts with Budget Activity 05, System Development & Demonstration (SDD). A. Mission Description and Budget Item Justification The Air Operations Center Weapon System (AOC WS), AN/USQ-163 Falconer, the senior element of the Theater Air Control System (TACS), is the weapon system the Commander, Air Force Forces (COMAFFOR) provides the Combined/Joint Force Air Component Commander (C/JFACC) for planning, executing, and assessing theater-wide air and space operations. The C/JFACC provides air, space and cyber support to the Combined/Joint Forces Commander (C/JFC) by coordinating, deconflicting and assessing the progress of various weapon systems to advance the C/JFC's campaign. The AOC WS develops operations strategy and planning documents. The weapon system also disseminates tasking orders; executes day-to-day peacetime and combat air, space and cyber operations; and provides rapid reaction to immediate situations by exercising positive control of friendly forces. The AOC WS Increment 10.2 program keeps the AOC interoperable, certified, supportable, and compliant through the integration, testing and fielding of new capabilities and upgrades to the AOC WS baseline. The program supports mission requirements at Geographic and Functional AOCs, as well as Support and Manpower Augmentation units. To keep the AOC current and interoperable with the COCOMs, cyber requirements, and fifth generation weapon system/weapons, the AOC WS program plans to evolve the AOC through the integration and test of progressively improving capabilities. These activities ensure a system of systems engineering perspective for the AOC WS, and include weapon system standardization activities as defined by AOC WS requirements documents. AOC Increment 10.2 received a Milestone B decision 11 October 2013. This project will provide for design, development, integration of 3rd party capabilities, and testing; as well as, build-up and fielding of the Help Desk (HD), Formal Training Unit (FTU), Combined Air Operations Center-eXperimental (CAOC-X) suite, and one geographic site. Activities also include studies and analysis to support current program planning and execution, as well as future program planning. This program is in Budget Activity 5, System Development & Demonstration (SDD) because the program passed Milestone B and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full fielding decision.												

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B. Program Change Summary (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget		-	85.938	47.946	-	47.946
Current President's Budget		-	85.938	47.629	-	47.629
Total Adjustments		-	-	-0.317	-	-0.317
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments		-	-	-0.317	-	-0.317
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2014	FY 2015	FY 2016
Title: AOC WS Inc 10.2 Prime Development				-	81.541	45.447
Description: AOC 10.2 infrastructure development and mission capability integration. Development of a robust, open, Net-Centric infrastructure with a Service Oriented Architecture (SOA). Conduct system maintenance and interoperability updates.						
FY 2014 Accomplishments: N/A						
FY 2015 Plans: Continue contractor modernization and provides contractor support for development and operational testing, training, and initial site deployment. This includes but is not limited to obtaining an Interim Authority to Test (IATT), preparing to obtain an Authority to Operate (ATO), conducting the contractor System Acceptance Test (SAT), conducting the Government Developmental Testing (DT), and the Operational Assessment. Additionally, bill of Material (BOM) procurement, pre-installation activities, site-preparations, and some on-site installation activities for the IOT&E sites will begin.						
FY 2016 Plans: Completes contractor modernization and provides contractor support for development and operational testing, training, and initial site deployment. This includes but is not limited obtain an Authority to Operate (ATO), completing the Government Developmental Testing (DT) and Operational Assessment. Operational Test activities will occur including installation of the IOT&E sites. OT phase I, conducted at CAOC-X, will be focused on operational suitability. OT phase II, conducted at the 1st operational site, will be focused on operational effectiveness.						
Title: AOC WS Inc 10.2 Test and Evaluation				-	1.922	1.424

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
Description: Test and Evaluation FY 2014 Accomplishments: N/A FY 2015 Plans: Plan and implement comprehensive Modernization contractor testing (in-plant integration and test, functional testing, security testing, etc.), System Acceptance Testing, Developmental Test and Evaluation (DT&E), and Operational Test and Evaluation (OT&E) on the AOC 10.2 baseline and system updates, to include test planning, conducting test, and documentation review. FY 2016 Plans: Will plan and implement comprehensive Modernization contractor testing (in-plant integration and test, functional testing, security testing, etc.), System Acceptance Testing, Developmental Test and Evaluation (DT&E), and Operational Test and Evaluation (OT&E) on the AOC 10.2 baseline and system updates, to include test planning, conducting test, and documentation review.				
Title: AOC WS Inc 10.2 Training Description: Training FY 2014 Accomplishments: N/A FY 2015 Plans: Effort includes, but is not limited to, support of the Modernization effort for AOC 10.2 training analysis, planning, and development during EMD, to include both contractor-developed capabilities and supplemental training for contractor modified 3rd party capabilities. This also includes curriculum and courseware / material development, instructor training, class / Computer Based Training conduct, and training surveys / analysis / updates / enhanced simulation capabilities. FY 2016 Plans: Planned effort will include, but is not limited to, support of the Modernization effort for AOC 10.2 training analysis, planning, and development during EMD, to include both contractor-developed capabilities and supplemental training for contractor modified 3rd party capabilities. This will also includes curriculum and courseware / material development, instructor training, class / Computer Based Training conduct, and training surveys / analysis / updates / enhanced simulation capabilities.		-	2.475	0.758
Accomplishments/Planned Programs Subtotals		-	85.938	47.629

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D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• RDTE: BA07: PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)	-	-	-	-	-	-	-	-	-	-	264.584
• RDTE: BA04: PE 0604458F: Air & Space Ops Center	60.971	-	-	-	-	-	-	-	-	-	60.971
• OPAF BA03 Line Item # 834560: Air & Space Operations Ctr Inc 10.2	-	-	24.246	-	24.246	50.877	43.219	32.038	32.606	373.583	438.800
Remarks											
E. Acquisition Strategy											
The acquisition strategy builds on existing capabilities using evolutionary acquisition to standardize, modernize and sustain the AOC. The initial capability was AOC-WS Increment 10.0 which fielded the 10.0 configuration to five operational sites, plus a Help Desk and a Formal Training Unit. The second increment, Increment 10.1, upgraded these locations to an integrated baseline and fielded the baseline to additional operational and reserve units worldwide. The latest increment is AOC 10.2. The AOC Modernization Contract was competitively awarded on 25 October 2011, but due to contract protests and associated delays, the actual start date was 20 December 2011. The Modernization contractor is using a system of systems perspective, and is following systems engineering rigor, to evolve AOC to a Net-Centric environment, compliant with DoD Service Oriented Architecture (SOA) standards.											
F. 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 2016 Air Force												Date: February 2015			
Appropriation/Budget Activity 3600 / 5						R-1 Program Element (Number/Name) PE 0605458F / Air & Space Ops Center 10.2 RDT&E						Project (Number/Name) 654945 / AOC 10.2 Development			
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
AOC 10.2 Modernization Government Furnished Equipment	Various	Various : ,	0.000	-		2.187	Feb 2015	-		-		-	-	2.187	-
AOC 10.2 Modernization Contract	C/CPIF	Northrop Grumman : Herndon, VA	0.000	-		70.015	Oct 2014	38.884	Oct 2015	-		38.884	-	108.899	212.958
AOC 10.2 Training	C/Various	TBD : TBD,	0.000	-		2.475	Jan 2015	0.758	Jan 2016	-		0.758	-	3.233	-
Subtotal			0.000	-		74.677		39.642		-		39.642	-	114.319	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Subtotal			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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	Various	Various : Various,	0.000	-		1.921	Dec 2014	1.424	Jan 2016	-		1.424	-	3.345	TBD
Subtotal			0.000	-		1.921		1.424		-		1.424	-	3.345	-
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
System Engineering	C/Various	MITRE : Bedford, MA	0.000	-		4.008	Oct 2014	2.413	Oct 2015	-		2.413	-	6.421	TBD
Program Management Adminstration	C/Various	Various : Hanscom AFB, MA	0.000	-		5.332	Oct 2014	4.150	Oct 2015	-		4.150	-	9.482	TBD
Subtotal			0.000	-		9.340		6.563		-		6.563	-	15.903	-

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			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		85.938		47.629		-		47.629	-	133.567	-

Remarks

In FY 2014, PE 0604458F, Project Number 644945, AOC Inc. 10.2, efforts were transferred from PE 0207410F, AOC WS, Project Number 675117, in order to improve transparency of ACAT 1 Acquisition programs.

In FY 2015, PE 0605458F, Air & Space Ops Center 10.2, project number 654945, AOC 10.2 Development, efforts were transferred from PE 0604458F, Air & Space Ops Center, project number 644945, AOC Increment 10.2 Development, in order to align post Milestone B development efforts with funding in RDT&E Budget Activity 05, System Development & Demonstration (SDD).

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force			Date: February 2015		
Appropriation/Budget Activity 3600 / 5		R-1 Program Element (Number/Name) PE 0605458F / Air & Space Ops Center 10.2 RDT&E			Project (Number/Name) 654945 / AOC 10.2 Development

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
AOC Inc 10.2 Milestone B (OCT 2013)																												
AOC Inc 10.2 Critical Design Review (MAR 2014)																												
AOC Inc 10.2 Milestone C (NOV 2015)																												
AOC Inc 10.2 Full Deployment Decision (DEC 2016)																												
AOC Inc 10.2 Design/Development																												
AOC Inc 10.2 Development Test (DT)/ Operational Test (OT) and Initial Operational Test and Evaluation (IOT&E)																												
AOC Inc 10.2 Fielding to Support IOT&E at the Help Desk																												
AOC Inc 10.2 Fielding to Support IOT&E at the Formal Training Unit (FTU)																												
AOC Inc 10.2 Fielding to Support IOT&E at the Initial Site																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605458F / <i>Air & Space Ops Center 10.2 RDT&E</i>	Project (Number/Name) 654945 / <i>AOC 10.2 Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AOC Inc 10.2 Milestone B (OCT 2013)	1	2014	1	2014
AOC Inc 10.2 Critical Design Review (MAR 2014)	2	2014	2	2014
AOC Inc 10.2 Milestone C (NOV 2015)	1	2016	1	2016
AOC Inc 10.2 Full Deployment Decision (DEC 2016)	1	2017	1	2017
AOC Inc 10.2 Design/Development	1	2014	3	2015
AOC Inc 10.2 Development Test (DT)/Operational Test (OT) and Initial Operational Test and Evaluation (IOT&E)	3	2015	3	2016
AOC Inc 10.2 Fielding to Support IOT&E at the Help Desk	2	2015	2	2016
AOC Inc 10.2 Fielding to Support IOT&E at the Formal Training Unit (FTU)	2	2015	2	2016
AOC Inc 10.2 Fielding to Support IOT&E at the Initial Site	2	2015	3	2016