

# UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force										Date: March 2014		
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 I Air & Space Ops Center 10.2 RDT&E							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	0.000	-	-	85.938	-	85.938	47.946	-	-	-	-	133.884
654945: AOC 10.2 Development	0.000	-	-	85.938	-	85.938	47.946	-	-	-	-	133.884
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

# The FY 2015 OCO Request will be submitted at a later date.

## Note

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.

AOC Increment 10.2 received a Milestone B decision 11 October 2013. 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). This is not a new start.

## 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 sustainment 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. The Modernization contractor, which was awarded the Modernization contract on 25 October 2011, conducted AOC 10.2 pre-Engineering and Manufacturing Development (EMD) activities, including a Systems Requirements Review (SRR), an Interim Design Review (IDR), and a delta-Preliminary Design Review (delta-PDR). In accordance with AOC 10.2 Milestone Decision Authority (MDA) direction (23 June 2010), the AOC 10.2 Modernization program conducted prototyping and Limited Early Install (LEI) activities through an iterative build methodology prior to Milestone B (MS B) to reduce integration risk and improve user feedback in the acquisition process. AOC Increment 10.2 received a Milestone B decision 11 October 2013. AOC 10.2 EMD activities include the design (i.e., Critical Design Review), development, integration of 3rd party capabilities, testing (Contractor in-plant system testing, Developmental Test and Evaluation, Operational Test and Evaluation, Operational Assessment, Test

# UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force				Date: March 2014		
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 I Air & Space Ops Center 10.2 RDT&E				
Readiness Review, etc.) of the AOC 10.2 baseline, 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 going into 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.						
B. Program Change Summary (\$ in Millions)		FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget		-	-	-	-	-
Current President's Budget		-	-	85.938	-	85.938
Total Adjustments		-	-	85.938	-	85.938
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments		-	-	85.938	-	85.938
Change Summary Explanation						
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).						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2013	FY 2014	FY 2015
Title: AOC WS Inc 10.2 Prime Development				-	-	79.568
Description: AOC 10.2 infrastructure development and mission capability integration. Development of a robust, open, Net-Centric infrastructure with a Service Oriented Architecture (SOA).						
FY 2015 Plans: Completes contractor modernization and provides contractor support for development and operational testing, training, and initial site deployment.						
Title: AOC WS Inc 10.2 Test and Evaluation				-	-	4.158

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2015 Air Force								<b>Date:</b> March 2014			
<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 5: System Development &amp; Demonstration (SDD)</i>						<b>R-1 Program Element (Number/Name)</b> PE 0605458F / <i>Air &amp; Space Ops Center 10.2 RDT&amp;E</i>					
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>											
						<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>			
<b>Description:</b> Test and Evaluation											
<b>FY 2015 Plans:</b> 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, to include test planning, conducting test, and documentation review.											
<b>Title:</b> AOC WS Inc 10.2 Training						-	-	2.212			
<b>Description:</b> Training											
<b>FY 2015 Plans:</b> 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 also includes curriculum and courseware / material development, instructor training, class / Computer Based Training conduct, and training surveys / analysis / updates / enhanced simulation capabilities.											
<b>Accomplishments/Planned Programs Subtotals</b>						-	-	85.938			
<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015 Base</b>	<b>FY 2015 OCO</b>	<b>FY 2015 Total</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• RDTE: BA07: PE 0207410F: <i>Air and Space Operations Center Weapon System (AOC WS), Project 675117</i>	49.329	-	-	-	-	-	-	-	-	-	-
• RDTE: BA04: PE 0604458F: <i>Air and Space Operations Center Weapon System (AOC WS), Project 644945</i>	-	58.861	-	-	-	-	-	-	-	-	-
• OPAF BA03 Line Item # 834560: <i>Air &amp; Space Operations Ctr Inc 10.2</i>	-	-	-	-	-	24.405	51.283	43.585	32.313	286.388	438.800
<b>Remarks</b>											

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force		Date: March 2014
<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force / BA 5: System Development &amp; Demonstration (SDD)</i>		<b>R-1 Program Element (Number/Name)</b> PE 0605458F / <i>Air &amp; Space Ops Center 10.2 RDT&amp;E</i>
<b>E. Acquisition Strategy</b> 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.		
<b>F. Performance Metrics</b> 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.		

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2015 Air Force</b>												<b>Date: March 2014</b>			
<b>Appropriation/Budget Activity</b> 3600 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0605458F / Air & Space Ops Center 10.2 RDT&E						<b>Project (Number/Name)</b> 654945 / AOC 10.2 Development			
<b>Product Development (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
AOC 10.2 Modernization Contract	C/Various	Northrop Grumman : Herndon, VA	0.000	-		-		66.195	Oct 2014	-		66.195	37.230	103.425	TBD
AOC 10.2 Training	C/Various	TBD : TBD,	0.000	-		-		2.212	Jan 2015	-		2.212	0.758	2.970	TBD
<b>Subtotal</b>			0.000	-		-		68.407		-		68.407	37.988	106.395	-
<b>Support (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Test	Various	Various : Various,	0.000	-		-		4.158	Dec 2014	-		4.158	1.424	5.582	TBD
<b>Subtotal</b>			0.000	-		-		4.158		-		4.158	1.424	5.582	-
<b>Management Services (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Management Adminstration	C/Various	Various : Hanscom AFB, MA	0.000	-		-		13.373	Oct 2014	-		13.373	5.012	18.385	TBD
<b>Subtotal</b>			0.000	-		-		13.373		-		13.373	5.012	18.385	-
<b>Project Cost Totals</b>			0.000	-		-		85.938		-		85.938	44.424	130.362	-

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Air Force							Date: March 2014			
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			
	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract	
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). This is not a new start.										

# UNCLASSIFIED

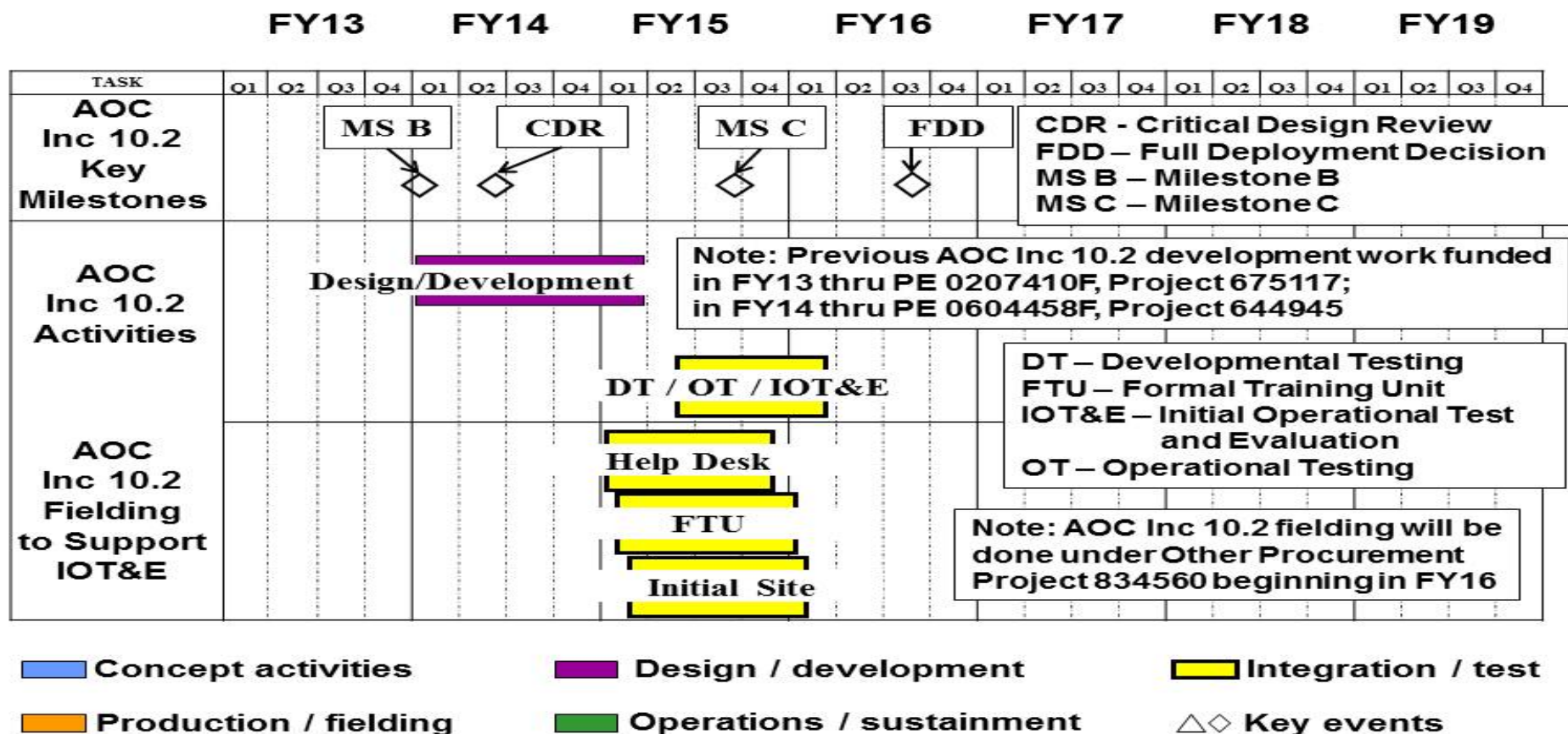
Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force

Date: March 2014

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



# UNCLASSIFIED

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2015 Air Force			<b>Date:</b> March 2014
<b>Appropriation/Budget Activity</b> 3600 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605458F / <i>Air &amp; Space Ops Center 10.2 RDT&amp;E</i>	<b>Project (Number/Name)</b> 654945 / <i>AOC 10.2 Development</i>	

## Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AOC Inc 10.2 Milestone B (MS B)	1	2014	1	2014
AOC Inc 10.2 Design/Development	1	2014	1	2015
AOC Inc 10.2 Critical Design Review (CDR)	2	2014	2	2014
AOC Inc 10.2 Development Test (DT)/Operational Test (OT) and Initial Operational Test and Evaluation (IOT&E)	2	2015	1	2016
AOC Inc 10.2 Milestone C (MS C)	3	2015	3	2015
AOC Inc 10.2 Fielding to Support IOT&E at the Help Desk	1	2015	4	2015
AOC Inc 10.2 Fielding to Support IOT&E at the Formal Training Unit (FTU)	1	2015	4	2015
AOC Inc 10.2 Fielding to Support IOT&E at the Initial Site	1	2015	1	2016
AOC Inc 10.2 Full Deployment Decision (FDD)	3	2016	3	2016