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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force										Date: February 2019		
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	162.711	4.666	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	167.377
654945: AOC 10.2 Development	162.711	4.666	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	167.377
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Program MDAP/MAIS Code: N42												
Note In FY 2019, PE 0605458F, Air & Space Ops Center 10.2 RDT&E, Project 654945, AOC 10.2 Development (AOC WS Inc 10.2), terminated 16 Jan 18.												
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 set of requirements 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 Global (formerly known as Functional) AOCs, as well as Support and Manpower Augmentation units. To keep the AOC current and interoperable with the Combatant Commands (CCMD), 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 by incremental and rapid delivery of requirements using commercial software development best practices. 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 WS Increment 10.2 received a Milestone B decision 11 October 2013. This project intended to 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. The use of lengthy legacy acquisition methodologies resulting in multi-year period before delivery drove the AF to change acquisition approaches and terminate the Prime Contract in July 2017 in order to pursue evolutionary industry best-practiced approaches.  In FY 2020, no funding is requested and no funding is required due to AOC WS Increment 10.2 contract termination in July 2017 and Program of Record cancellation in January 2018.												

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This program element may include necessary civilian pay expenses required to manage, execute, and deliver AOC WS Increment 10.2 capabilities. 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.								
As directed in the FY 2018 NDAA, Sec 825, amendment to PL 114-92 FY 2016 NDAA, Sec 828 Penalty for Cost Overruns, the FY 2018 Air Force penalty total is \$14.373M. The calculated percentage reduction to each research, development, test and evaluation and procurement account will be allocated proportionally from all programs, projects, or activities under such account.								
This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.								
B. Program Change Summary (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total		
Previous President's Budget		119.745	0.000	0.000	0.000	0.000		
Current President's Budget		4.666	0.000	0.000	0.000	0.000		
Total Adjustments		-115.079	0.000	0.000	0.000	0.000		
• Congressional General Reductions		-0.334	0.000					
• Congressional Directed Reductions		-114.745	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		0.000	0.000					
• Other Adjustments		0.000	0.000	0.000	0.000	0.000		
Change Summary Explanation								
FY 2018: Decrease of \$114.745M due to cancellation of AOC 10.2 program and Air Force request to transfer funding to PE 0207410F, AOC, Project 674596, AOC WS Modifications, for the purpose of software production and sustainment activities for rapid incremental improvements to the AOC WS.								
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: AOC WS Inc 10.2 Development				4.666	0.000	0.000	0.000	0.000
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.								

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
<b>FY 2019 Plans:</b> N/A						
<b>FY 2020 Base Plans:</b> N/A						
<b>FY 2020 OCO Plans:</b> N/A						
<b>FY 2019 to FY 2020 Increase/Decrease Statement:</b> N/A						
<b>Accomplishments/Planned Programs Subtotals</b>		4.666	0.000	0.000	0.000	0.000
<b>D. Other Program Funding Summary (\$ in Millions)</b> N/A						
<b>Remarks</b>						
<b>E. Acquisition Strategy</b> The acquisition strategy builds on existing capabilities using evolutionary acquisition to standardize, modernize and sustain the AOC. With the termination of the AOC 10.2 Prime Contract on 13 Jul 17 and official cancellation on 16 Jan 18, the Air Force is undergoing the orderly shutdown to cancel the AOC 10.2 Program of Record. Additionally, Raytheon was awarded the Long-Term Modification and Sustainment (LTM&S) contract for the AOC WS on 24 Apr 17, with official hand-off as of 30 Jun 17. This means the Air Force will leverage Raytheon for sustainment of the existent AOC 10.1 baseline as well as modifications to that baseline in pursuit of a modernized AOC. The Air Force pursued the AOC Pathfinder effort designed to mirror commercial software best practices to incrementally deliver capability to the warfighter at a rapid and efficient pace using Agile DevOps. Partnered with Defense Digital Service (DDS) and Defense Innovation Unit Experimental (DIUx), and using the AOC 10.1 baseline as the starting point, the Air Force will leverage AOC 10.2 components piecemeal as applicable to agile software develop the existing backlog.						
<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.						

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Air Force												Date: February 2019			
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 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 WS Inc 10.2 Modernization Government Furnished Equipment	Various	Various : Various	2.027	0.000		-		-		-		-	0.000	2.027	-
AOC WS Inc 10.2 Modernization Contract	C/CPIF	Northrop Grumman : Herndon, VA	129.762	3.780	Mar 2019	-		-		-		-	0.000	133.542	212.958
AOC WS Inc 10.2 Training	C/Various	Various : Various	2.936	0.000		-		-		-		-	0.000	2.936	-
Subtotal			134.725	3.780		-		-		-		-	0.000	138.505	N/A
Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 WS Inc 10.2 Test	Various	Various : Various	4.885	0.000		-		-		-		-	0.000	4.885	-
Subtotal			4.885	0.000		-		-		-		-	0.000	4.885	N/A
Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 WS Inc 10,2 System Engineering	C/Various	MITRE : Bedford, MA	13.156	0.000		-		-		-		-	0.000	13.156	-
AOC WS Inc 10.2 Program Management Administration	C/Various	Various : Hanscom AFB, MA	9.945	0.886	Nov 2017	-		-		-		-	0.000	10.831	-
Subtotal			23.101	0.886		-		-		-		-	0.000	23.987	N/A
			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			162.711	4.666		0.000		-		-		-	0.000	167.377	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Air Force			Date: February 2019		
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			Project (Number/Name) 654945 / AOC 10.2 Development		

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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 WS Inc 10.2																												
AOC WS Inc 10.2 Termination/Cancellation																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Air Force		Date: February 2019
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

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AOC WS Inc 10.2				
AOC WS Inc 10.2 Termination/Cancellation	1	2018	2	2019