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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 0401314F I Operational Support Airlift							
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	0.000	13.332	6.681	3.172	0.000	3.172	0.000	0.000	0.000	0.000	0.000	23.185
676024: VC-25 Avionics Modernization Program	0.000	13.332	6.681	3.172	0.000	3.172	0.000	0.000	0.000	0.000	0.000	23.185
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

## **A. Mission Description and Budget Item Justification**

VC-25A Avionics Modernization Program (AMP) assures unrestricted global access to civilian and military airspace to support the President of the United States as Head of State, Chief Executive, and Commander in Chief. AMP upgrades use a systems approach to aid pilot awareness and alleviate task saturation enhancing safety in a high technology concentrated airspace environment. VC-25A AMP is a required modification to ensure the viability of the Presidential support airlift fleet until the VC-25B Presidential Aircraft Recapitalization program is fielded.

AMP complies with mandates for civil Automatic Dependent Surveillance-Broadcast (ADS-B) Out and Identification Friend or Foe (IFF) Mode 5 and provides an improved Advisory Vertical Navigation (VNAV) capability. It will incorporate multiple subsystems, to include, but not limited to, maneuver camera system, large cockpit displays, and navigation radios to increase the utility and safety of the VC-25A. Provisions for the military ADS-B Out will also be provided. Installations are aligned with the aircraft heavy maintenance schedule.

BA-7 - 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><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2017</u></b>	<b><u>FY 2018</u></b>	<b><u>FY 2019 Base</u></b>	<b><u>FY 2019 OCO</u></b>	<b><u>FY 2019 Total</u></b>
Previous President's Budget	13.817	6.681	0.000	0.000	0.000
Current President's Budget	13.332	6.681	3.172	0.000	3.172
Total Adjustments	-0.485	0.000	3.172	0.000	3.172
• 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	-0.485	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	3.172	0.000	3.172

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<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>		<b>R-1 Program Element (Number/Name)</b> PE 0401314F <i>I Operational Support Airlift</i>	
<b><u>Change Summary Explanation</u></b> Funding reduction due to program restructure and to continue funding to completion.			
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Title:</b> Design and Test	13.332	6.681	3.172
<b>Description:</b> Design and Test efforts included stand-up of a Systems Integration Laboratory (SIL), non-recurring engineering, material buys for the SIL, as well as design, test and evaluation, and installation of the avionics systems. All modifications to be performed on the aircraft must be proven on the ground prior to installation.			
<b>FY 2018 Plans:</b> Funding will be used for Installation, Ground Test and Flight Test.			
<b>FY 2019 Plans:</b> Program restructure requires continued funding to completion.			
<b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Funding reduction due to program restructure and to continue funding to completion.			
<b>Accomplishments/Planned Programs Subtotals</b>	13.332	6.681	3.172
<b>D. Other Program Funding Summary (\$ in Millions)</b> N/A			
<b>Remarks</b>			
<b>E. Acquisition Strategy</b> VC-25A AMP is accomplished by developmental integration of commercial off-the-shelf systems, hardware procurement and installation is accomplished to align with heavy maintenance depot schedules. An Uninitialized Contract Action (UCA) was issued in Jun 12. The UCA was definitized with a Cost Plus Incentive Fee (CPIF) type contract April 2014. The CPIF contract covers the engineering RDT&E effort through Critical Design Review in FY15. The remaining RDT&E effort including the first kit, install and flight test was awarded in FY15 and concludes in FY18 with delivery of the first aircraft.			
<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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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2019 Air Force													<b>Date:</b> February 2018		
<b>Appropriation/Budget Activity</b> 3600 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0401314F / <i>Operational Support Airlift</i>				<b>Project (Number/Name)</b> 676024 / <i>VC-25 Avionics Modernization Program</i>					

  

<b>Product Development (\$ in Millions)</b>				<b>FY 2017</b>		<b>FY 2018</b>		<b>FY 2019 Base</b>		<b>FY 2019 OCO</b>		<b>FY 2019 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>
VC-25 AMP Engineering	SS/CPIF	Oklahoma City : Tinker, AFB, OK	-	12.332	Feb 2017	6.681	Jan 2018	3.172	Mar 2018	-		3.172	0.000	22.185	-
<b>Subtotal</b>			-	12.332		6.681		3.172		-		3.172	0.000	22.185	N/A

  

<b>Management Services (\$ in Millions)</b>				<b>FY 2017</b>		<b>FY 2018</b>		<b>FY 2019 Base</b>		<b>FY 2019 OCO</b>		<b>FY 2019 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>
VC-25 AMP Program Management Activities	SS/CPIF	OC-ALC : Oklahoma City, OK	-	1.000	Jan 2017	-		-		-		-	0.000	1.000	-
<b>Subtotal</b>			-	1.000		-		-		-		-	0.000	1.000	N/A

  

			<b>Prior Years</b>	<b>FY 2017</b>		<b>FY 2018</b>		<b>FY 2019 Base</b>		<b>FY 2019 OCO</b>		<b>FY 2019 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			-	13.332		6.681		3.172		-		3.172	0.000	23.185	N/A

  

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2019 Air Force			<b>Date:</b> February 2018		
<b>Appropriation/Budget Activity</b> 3600 / 7		<b>R-1 Program Element (Number/Name)</b> PE 0401314F / <i>Operational Support Airlift</i>			<b>Project (Number/Name)</b> 676024 / <i>VC-25 Avionics Modernization Program</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
<b>AMP</b>																												
PMA																												
ADS-B Out NRE																												
EGPWS																												
Test and Evaluation 1																												
NRE																												
OGC/PMA 1																												
UFH Control																												
Test and Evaluation 2																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 Air Force			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401314F / <i>Operational Support Airlift</i>	<b>Project (Number/Name)</b> 676024 / <i>VC-25 Avionics Modernization Program</i>	

**Schedule Details**

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>AMP</i></b>				
PMA	4	2017	4	2018
ADS-B Out NRE	4	2017	4	2017
EGPWS	4	2017	4	2018
Test and Evaluation 1	2	2018	4	2018
NRE	2	2018	3	2018
OGC/PMA 1	4	2018	4	2019
UFH Control	1	2019	4	2021
Test and Evaluation 2	2	2019	4	2019

**Note**

AMP contract award March 2012, followed by systems integration laboratory engineering.