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**Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Air Force** **Date:** February 2020

<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>Operational Support Airlift</i>
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	0.000	3.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
676024: <i>VC-25 Avionics Modernization Program</i>	0.000	3.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	2	-	-	-	-	-	-	-	-		

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

October 2017, VC-25A Avionics Modernization Program (AMP) was de-scoped from upgrading the flight deck avionics to compliance with the mandates for civil Automatic Dependent Surveillance-Broadcast (ADS-B) Out and DoD Identification Friend or Foe (IFF) Mode 5 capability supporting the President of the United States as Head of State, Chief Executive, and Commander in Chief.

Installations are aligned with the aircraft heavy maintenance (HM) schedule. The de-scoped AMP requirements to ADS-B Out and IFF Mode 5 must integrate the 2020 mandate capability in HM18-8 and HM20-9 utilizing the remaining FY 2018 funds for test, tech data integration, System Integration Lab (SIL), field team and other government costs. The National Security Waiver signed by Secretary of the Air Force 11 Dec 18 included the capability for ADS-B Out and IFF Mode 5 full FAA compliance 2025, which would utilize procurement funds but has not been funded.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver VC-25A weapon system capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605831F.

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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>
Previous President's Budget	3.172	0.000	0.000	0.000	0.000
Current President's Budget	3.059	0.000	0.000	0.000	0.000
Total Adjustments	-0.113	0.000	0.000	0.000	0.000
• 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	0.000	0.000			
• SBIR/STTR Transfer	-0.113	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<b>Title:</b> Design and Test	3.059	-	-
<b>Description:</b> Design and Test efforts included a Systems Integration Laboratory (SIL), material buys for the SIL, non-recurring engineering and test and evaluation.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.059	-	-

**D. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

VC-25A AMP, ADS-B Out and IFF Mode 5 is being accomplished by developmental integration of commercial off-the-shelf systems, hardware procurement and installation aligns with HM depot schedules. A Cost Plus Incentive Fee (CPIF) contract was awarded Sep 17 to complete non-recurring engineering, kit, tech data and SIL development. RDT&E efforts included the second kit, install, corrected wiring diagrams in the Wiring Information Retrieval System (WIRS), finalized tech data development, tech data integration into maintenance manuals, SE/PM, Other Government Cost (OGC) and PMA. Air Force took delivery of the first aircraft in FY19 and second kit configuration in FY20.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2021 Air Force</b>		<b>Date:</b> February 2020
<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 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025			
	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>																												
OGC/PMA				■																								
ADS-B Out NRE				■																								
Test and Evaluation 1				■	■	■	■																					
NRE				■	■	■	■																					
Test and Evaluation 2				■	■	■	■																					

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2021 Air Force		<b>Date:</b> February 2020
<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>AMP</b>				
OGC/PMA	4	2019	4	2019
ADS-B Out NRE	4	2019	4	2019
Test and Evaluation 1	2	2019	4	2019
NRE	2	2019	3	2019
Test and Evaluation 2	2	2019	4	2019