

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron
--	--

COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.392	5.427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.819
675250: <i>C-130H Avionics Modernization Program (AMP) Increment 2</i>	-	0.392	5.427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.819

A. Mission Description and Budget Item Justification

The C-130H is a medium sized tactical transport aircraft providing multi-purpose theater support throughout the globe. The C-130H fleet supports several diverse Air Force roles, including but not limited to tactical and inter-theater airlift and airdrop support, Arctic resupply, special operations support, aeromedical evacuation, aerial spraying, firefighting duties, and natural disaster and humanitarian relief missions.

Previous funding provides weapon system modifications and upgrades to meet USAF mission requirements for the LC/C-130H fleets.

C-130H AMP Increment 2 includes digital avionics upgrades (e.g. Flight Management System, improved navigation), cockpit modernization (e.g. glass/engine flight displays) and resolves select obsolescence and Diminishing Manufacturing Source (DMS) issues. RDT&E efforts cover software development, design, integration, developmental and operational test, studies and risk reduction efforts, trial kit buy and installation, technical order development validation and verification, spares and peculiar support equipment in support of trial kit installs, Systems Integration Laboratory (SIL) development, type 1 training and C-130H aircrew and maintenance training systems and courseware development efforts, program office support and other efforts necessary to fulfill program requirements. Project 672030, MUOS/SATURN, is now included in project 675250, AMP Increment 2. The MUOS/SATURN radio addresses future DMS/integration issues and incorporates MUOS/SATURN capabilities.

The AMP Increment 2 program experienced significant software development and flight test planning issues in FY 2022. These issues led to the program being rebaselined; Milestone C is now planned for March 2025.

This funding includes Rapid Global Mobility (RGM) platform related activities including but not limited to prototyping, capability development, process activities, planning analysis and systems engineering activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023 \$0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 \$0.000 million is forecast for civilian pay expenses in this program element.

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.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	Date: March 2024
--	-------------------------

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron
--	--

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.407	5.427	0.000	0.000	0.000
Current President's Budget	0.392	5.427	0.000	0.000	0.000
Total Adjustments	-0.015	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	-0.015	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron				Project (Number/Name) 675250 / C-130H Avionics Modernization Program (AMP) Increment 2			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675250: C-130H Avionics Modernization Program (AMP) Increment 2	-	0.392	5.427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.819
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The C-130H AMP Increment 2 upgrades the C-130H fleet with comprehensive avionics and cockpit modernization which replaces aging unreliable equipment and adds combat capability enhancements. It also updates radios due to future Diminishing Manufacturing Sources (DMS)/integration issues and incorporates MUOS/SATURN radio capabilities. It also addresses select obsolescence and DMS issues with solutions that may include life of type buys or bridge buys. DMS efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative.

Previous funding provides weapon system modifications and upgrades to meet USAF mission requirements for the LC/C-130H fleets.

RDT&E efforts include but are not limited to software development, design, integration, development and operational test, studies and risk reduction efforts, trial kit buy and installation, technical order development validation and verification, peculiar support equipment and spares in support of trial kit installs, SIL development, type 1 training, and C-130H aircrew and maintenance training systems and courseware development efforts, program office support and other efforts required to fulfill requirements. Project 672030, MUOS/SATURN, is now included in project 675250, AMP Increment 2. The MUOS/SATURN radio addresses future DMS/integration issues and incorporates MUOS/SATURN capabilities.

The C-130H AMP Increment 2 program modifies up to 80 C-130H USAF owned aircraft consisting of H3s, H2.5s, H2s, and LC-130H aircraft. The modification effort includes three prototype aircraft representative of variations in the mission designs and required for accomplishment of the Engineering and Manufacturing Development (EMD) phase with the remaining aircraft modified in the production phase.

The program experienced significant software development and flight test planning issues in FY 2022. These issues led to the program being rebaselined; Milestone C is now planned for March 2025.

This funding includes Rapid Global Mobility (RGM) platform related activities including but not limited to prototyping, capability development, process activities, planning analysis and systems engineering activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron	Project (Number/Name) 675250 / C-130H Avionics Modernization Program (AMP) Increment 2
--	--	--

and 0606398F. In FY2023, \$0.000 million was expended for civilian pay expenses in this program element, and in FY2024 \$0.000 is forecast for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: C-130H Avionics Modernization Program (AMP) Increment 2	0.392	5.427	0.000
Description: The program is currently executing the Engineering and Manufacturing Development (EMD) phase activities.			
FY 2024 Plans: Complete EMD activities, primarily related to development and operational test completion and weapon system trainer and courseware completion. Other remaining actions may include but are not limited to Joint Mission Planning System and other supporting system updates, studies and risk reduction efforts, technical order development validation and verification, SIL activities, type 1 training, and other efforts. Required to fulfill program requirements.			
FY 2025 Plans: N/A			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding decreased due to completion of AMP Inc 2 EMD.			
Accomplishments/Planned Programs Subtotals			
	0.392	5.427	0.000

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u>	<u>Total Cost</u>
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	
• APAF 05 Line Item C13000: C-130	165.703	71.177	102.519	-	102.519	148.348	113.742	63.564	74.658	Continuing	Continuing
• APAF 06 Line Item 000999: Initial Spares/Repair Parts	0.000	0.695	3.871	-	3.871	3.213	3.317	3.386	-	Continuing	Continuing

Remarks

None

D. Acquisition Strategy

C-130H AMP Increment 2 contract was awarded 3rd quarter of 2019. Current efforts are primarily focused on the Engineering and Manufacturing Development (EMD) activities under a Fixed-Price Incentive (Firm) contract structure.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron	Project (Number/Name) 675250 / C-130H Avionics Modernization Program (AMP) Increment 2
--	--	--

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C-130H AMP Increment 2 EMD Contract	C/FPIF	L3Harris : Waco, TX	-	0.392	Jun 2023	4.427	Apr 2024	-		-		-	0.000	4.819	91.739
Subtotal			-	0.392		4.427		-		-		-	0.000	4.819	N/A

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Other Government Costs	TBD	Not specified. : TBD	-	-		0.100	May 2024	-		-		-	0.000	0.100	3.777
Direct Cite Civilian Pay	C/CPAF	Not specified. : TBD	-	-		-		-		-		-	0.000	0.000	0.960
Subtotal			-	-		0.100		-		-		-	0.000	0.100	N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C-130H AMP Increment 2 PSC Contractor Services	Various	Not Specified : TBD	-	-		-		-		-		-	0.000	0.000	14.238
C-130H AMP Increment 2 PSC - Government Cost	Various	Not Specified : TBD	-	-		0.900	Feb 2024	-		-		-	0.000	0.900	0.773
Subtotal			-	-		0.900		-		-		-	0.000	0.900	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals		-	0.392	5.427	-	-	-	0.000	5.819	N/A

Remarks
 FINANCIAL PERFORMANCE: AMP Increment 2 is evaluated against traditional Research and Development (R&D) program expenditure benchmarks. Unlike many traditional R&D programs, however, the AMP Increment 2 EMD phase contract is an Fixed Price Incentive Fee (FPIF) contract with progress payments. Twenty percent (20%) of incurred costs are withheld until the end of the contract, when they are liquidated. Mandatory funding obligations and progress payment withholds will cause the program to lag traditional expenditure benchmarks, painting an inaccurate portrait of overall program health.

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron	Project (Number/Name) 675250 / C-130H Avionics Modernization Program (AMP) Increment 2

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
C-130H AMP Increment 2				
Development Testing - Phase 1	4	2023	4	2024
Development Testing - Phase 2	1	2025	1	2025
Milestone C	2	2025	2	2025