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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Air Force **Date:** April 2022

<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 0401132F / C-130J Program
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	6.179	24.112	11.060	0.000	11.060	14.104	14.365	14.668	14.995	Continuing	Continuing
675061: C-130J	0.000	6.179	7.607	9.632	0.000	9.632	14.104	14.365	14.668	14.995	Continuing	Continuing
675305: C-130J Prog	0.000	0.000	16.505	1.428	0.000	1.428	0.000	0.000	0.000	0.000	0.000	17.933

**Program MDAP/MAIS Code:** 220

**Note**

In FY 2022, PE 0401132F, (C-130J Program), Project 675061, (C-130J) efforts were transferred to, Project 675305, (C-130J Prog), in order to create a follow on ACAT III program to separate Communications Modernization from the C-130J ACAT I program.

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

The C-130J is a medium-sized transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 feet) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/H and the C-130J (short). Special mission variants of the C-130J conduct airborne psychological operations (EC-130J), weather reconnaissance (WC-130J), search and rescue (HC-130J), and special operations (MC-130J and AC-130J). All aircraft variants must be capable of worldwide operations.

This project provides RDT&E funding for required capabilities that are grouped as "Block" upgrades or "Capability" or Enhancement and Deficiencies (EnD) updates. Content/requirements for block modifications is documented in International Program Directives (IPDs) and as determined in the Cooperative Systems and Software Upgrade Requirements Management (COSSURM) prioritized requirements process. This project will integrate the common-core capabilities developed under this program into the C-130J.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver C130J weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2021 \$0.000 million was expended for civilian pay expenses in this program element, and in FY 2022 \$0.000 million is forecasted for civilian pay expenses in this program element.

"This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D".

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.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Air Force	<b>Date:</b> April 2022
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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 0401132F / C-130J Program
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	10.656	14.112	0.000	0.000	0.000
Current President's Budget	6.179	24.112	11.060	0.000	11.060
Total Adjustments	-4.477	10.000	11.060	0.000	11.060
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	10.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-4.250	0.000			
• SBIR/STTR Transfer	-0.227	0.000			
• Other Adjustments	0.000	0.000	11.060	0.000	11.060

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 675305: *C-130J Prog*

Congressional Add: *Digital Heads Up Display (HUD) and Enhanced Vision System (EVS)*

Congressional Add Subtotals for Project: 675305

Congressional Add Totals for all Projects

	<b>FY 2021</b>	<b>FY 2022</b>
Congressional Add Subtotals for Project: 675305	0.000	10.000
Congressional Add Totals for all Projects	0.000	10.000

**Change Summary Explanation**

FY 2021 funding was reduced by a total of \$4.477 million which included a \$4.250 million reprogramming action for higher Air Force priorities and \$0.227 million for Small Business Innovation Research.

The FY 2022 President's Budget submittal did not reflect FY 2023 through FY 2026 funding. Therefore, an explanation of the change between the two budget positions for FY2023 cannot be made in a relevant manner.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 3600 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program				<b>Project (Number/Name)</b> 675061 / C-130J			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
675061: C-130J	0.000	6.179	7.607	9.632	0.000	9.632	14.104	14.365	14.668	14.995	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

In FY 2022, PE 0401132F, (C-130J Program), Project 675061, (C-130J) efforts were transferred to, Project 675305, (C-130J Prog), in order to create a follow on ACAT III program to separate Communications Modernization from the C-130J ACAT I program.

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

The C-130J is a medium-sized transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 feet) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/H and the C-130J (short). Special mission variants of the C-130J conduct airborne psychological operations (EC-130J), weather reconnaissance (WC-130J), search and rescue (HC-130J), and special operations (MC-130J and AC-130J). All aircraft variants must be capable of worldwide operations.

This project also provides RDT&E funding for required capabilities that are grouped as "Block" upgrades or "Capability" or Enhancement and Deficiencies (EnD) updates. Content/requirements for these efforts is documented in International Program Directives (IPDs) as determined through the Cooperative Systems and Software Upgrade Requirements Management (COSSURM) process or other approved C-130J Joint User Group (JUG) processes. Activities required to complete development and integration of the common-core capabilities for all United States' variants are included in this project. In addition, this project includes early acquisition and engineering studies and initiatives related to the C-130J such as, but not limited to, capability gap resolution, emerging technology assessments, exploration and adaptation, systems integration assessments and technology transition; to include digital transformation.

This project also provides RDT&E funding for requirements that are outside of the "Block" upgrades, "Capability" updates, "Enhancement and Deficiencies" (EnD) updates, or COSSURM process. These efforts may include, but are not limited to, communication, data link, Global Positioning Systems (GPS), electronic warfare, formation flight system, digital pathfinder initiatives and mission support system updates. The requirements are identified and concurred between the C-130J Program Office and Air Mobility Command (AMC). Requirements are documented through the C-130J Program Office approval process.

This project provides RDT&E funding for studies and risk reduction activities and Program Support Costs (PSC).

This project includes RDT&E funding for the following C-130J aircraft variants: C-130J stretch aircraft, C-130J short aircraft, EC-130J aircraft, WC-130J aircraft, HC-130J aircraft, MC-130J aircraft, and AC-130J aircraft.

This project included RDT&E funding for Rapid Global Mobility (RGM) platform related activities including, but not limited to, prototyping, capability development, process activities, planning analysis, digital acquisition and systems engineering activities.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Air Force **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675061 / C-130J
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This program includes funding for Mobile User Objective System (MUOS), which began in FY 2020 under project 675061. In FY21, the name of this effort changed to Communication Modernization. Development, integration, and test of the new radio and communication systems including, but not limited to, Mobile User Objective System (MUOS), Second-generation Anti-jam Tactical UHF Radio for NATO (SATURN), Joint Range Extension Application Protocols (JREAP) to modernize Military Satellite Communication System (MILSATCOM), Ultra High Frequency (UHF), High Frequency (HF), special mission processing, and data link messaging. These systems will provide secure, global Line of Sight (LOS) and Beyond Line of Sight (BLOS) satellite voice and data connectivity utilizing modern satellite constellations. Furthermore, these systems will also be integrated into other C-130J capabilities, such as Radio Frequency (RF) components including ALR-69A and DRFM (Digital Radio Frequency Memory Countermeasure). Starting in FY22, funding for this effort will continue under project 675305.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver C130J weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2021 \$0.000 million was expended for civilian pay expenses in this program element, and in FY 2022 \$0.000 million is forecasted for civilian pay expenses in this program element.

"This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D".

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p><b>Title:</b> Block 8.1</p> <p><b>Description:</b> BLOCK 8.1 Adds Identification Friend or Foe (IFF) Mode 5, Civil Data Link, Automatic Dependent Surveillance - Broadcast (ADS-B), Air Traffic Services (ATS)/Airline Operational Control (AOC) Data Link for Line of Sight (LOS) and Beyond Line of Sight (BLOS) communication, enhanced covert lighting, improved Public Address(PA) System, and Approach Procedure with Vertical guidance (APV)/ Localizer Performance with Vertical guidance (LPV) approach capability. Major avionics platforms impacted include, but are not limited to, Flight Management System (FMS) Software, Mission Computer (MC) Software, Bus Interface Unit (BIU) software, special mission processing, and Maintenance Management System (MMS).</p> <p><b>FY 2022 Plans:</b> Continue Block 8.1 TKI for WC-130J</p> <p><b>FY 2023 Base Plans:</b> Continuation of WC-130J Trial Kit Installation (TKI) Non-Recurring Engineering (NRE)</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding decreased due to reduced WC-130J TKI NRE requirements.</p>	2.124	3.673	3.066	0.000	3.066
<p><b>Title:</b> Test &amp; Evaluation</p>	0.525	0.645	0.970	0.000	0.970

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675061 / C-130J

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<p><b>Description:</b> Test and evaluation planning, conduct and support for developmental and operational testing of C-130J programs; to include, but not limited to the Block 8.1 and CMU2 (8.1.2) programs.</p> <p><b>FY 2022 Plans:</b> CMU 2 (8.1.2) testing requirements for FY22.</p> <p><b>FY 2023 Base Plans:</b> Testing for CMU2 (8.1.2)</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding increased due to ramp-up testing for CMU2 (8.1.2)</p>					
<p><b>Title:</b> Capability Management Update (CMU)</p> <p><b>Description:</b> Project 657061, Capabilities Management Upgrades (CMU), changed to Enhancement &amp; Deficiencies (EnD) beginning in FY 2023.</p> <p>CMU 1 (8.1.1) and CMU 2 (8.1.2) refine and build on Block upgrade modifications that improve operational effectiveness, satisfy emerging operational needs, and enhance human machine interface (HMI) to allow a workload that meets human factors standards and maintains the present crew complement. Major systems software impacted includes, but not limited to, FMS Software, MC Software, BIU software, and MMS, Mission Computer (MC), Communications Navigation Identification - System Processor (CNI-SP), Special Mission Display Processor (SMDP) and Data Transfer and Diagnostic System (DTADS).</p> <p><b>FY 2022 Plans:</b> Continuation of software development for Capability Management Update (CMU) 1 and CMU 2 efforts, fielded as Block 8.1.1 and 8.1.2 respectively.</p> <p><b>FY 2023 Base Plans:</b> Continuation of CMU2 program Block 8.1.1 and 8.1.2 activities.</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>	1.025	1.045	1.927	0.000	1.927

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force			<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675061 / C-130J			
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Funding increased due to ramp-up of CMU2 block 8.1.1 and 8.1.2 program activities.					
<p><b>Title:</b> Communication Modernization</p> <p><b>Description:</b> Beginning in FY 2022, funding for this effort changed from Project 675061, Communication Modernization to Project 675305, Communication Modernization.</p> <p>Development and integration of the new radio and communication systems including, but not limited to, Mobile User Objective System (MUOS), Second-generation Anti-jam Tactical UHF Radio for NATO (SATURN), Joint Range Extension Application Protocols (JREAP) to modernize Military Satellite Communication System (MILSATCOM), Ultra High Frequency (UHF), High Frequency (HF), special mission processing, and data link messaging. These systems will provide secure, global Line of Sight (LOS) and Beyond Line of Sight (BLOS) satellite voice and data connectivity utilizing modern satellite constellations. Furthermore, these systems will also be integrated into other C-130J capabilities, such as Radio Frequency (RF) components including ALR-69A and DRFM (Digital Radio Frequency Memory Countermeasure).</p> <p><b>FY 2022 Plans:</b> N/A</p> <p><b>FY 2023 Base Plans:</b> N/A</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> N/A</p>	0.241	0.000	0.000	0.000	0.000
<p><b>Title:</b> Enhancement &amp; Deficiencies (EnD)</p> <p><b>Description:</b> Project 657061, Enhancement &amp; Deficiencies (EnD), changed from Capabilities Management Upgrades (CMU) beginning in FY 2023.</p> <p>EnD 1 (8.1.3) and EnD 2 (8.1.4) refine and continue to build upon the Block upgrade modifications that improve operational effectiveness, satisfy emerging operational needs, and enhance human machine interface (HMI) to allow a workload that meets human factors standards and maintains the present crew complement. Major systems software impacted includes, but not limited to, Flight Management System (FMS) Software, Mission Computer (MC) Software, Communications Navigation Identification - System Processor (CNI-SP), Special</p>	0.000	0.000	0.989	0.000	0.989

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675061 / C-130J

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Mission Display Processor (SMDP), Data Transfer and Diagnostic System (DTADS), Bus Interface Unit (BIU) software, special mission processing, and Maintenance Management System (MMS).  <b>FY 2022 Plans:</b> N/A  <b>FY 2023 Base Plans:</b> Initial fielding of Blocks EnD 8.1.3 and EnD 8.1.4 activities.  <b>FY 2023 OCO Plans:</b> N/A  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding increased due to Enhancement & Deficiencies 1 contract award activities.					
<b>Title:</b> Cooperative Systems and Software Upgrade Requirements Management (COSSURM) <b>Description:</b> Continuing effort to collect potential requirements for inclusion into a Capability Management Update, or Enhancement and Deficiencies (EnD) Common Non-Recurring Engineering (CNRE) effort.  <b>FY 2022 Plans:</b> Continuation of CMU/EnD COSSURM requirements review and analysis.  <b>FY 2023 Base Plans:</b> Continuation of COSSURM planning and development of EnD requirements and JUG website.  <b>FY 2023 OCO Plans:</b> N/A  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding increased due to additional activities for EnD requirements and Joint Users Group (JUG) website development.	0.000	0.090	0.180	0.000	0.180
<b>Title:</b> Other Initiatives <b>Description:</b> C-130J Initiatives/Studies and digital transformation efforts.  <b>FY 2022 Plans:</b> Continuation of Pod Study, Mission Planning, software updates and DevSecOps software pipeline pathfinder  <b>FY 2023 Base Plans:</b>	1.764	2.154	2.500	0.000	2.500

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675061 / C-130J

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Continuation of Pod Study and Future Initiatives <i>FY 2023 OCO Plans:</i> N/A <i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> Funding increased due to increase in AMC pod study initiatives.					
<i>Title:</i> Below Threshold Reprogramming (BTR) <i>Description:</i> An FY21 BTR (-0.500M) occurred after the FY23 budget numbers were set. Actual FY21 funding available is \$5.679M. <i>FY 2022 Plans:</i> N/A <i>FY 2023 Base Plans:</i> N/A	0.500	0.000	0.000	-	0.000
<b>Accomplishments/Planned Programs Subtotals</b>	6.179	7.607	9.632	0.000	9.632

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• APAF 05 Line Item C1300J: C-130J Mods	134.090	113.127	-	-	-	0.000	0.000	-	-	0.000	247.217
• APAF 02 Line Item C130J0: C-130J	8.412	8.585	0.000	-	0.000	0.000	0.000	-	-	0.000	16.997
• RDTE 05 C130J AMBIT: AMBIT	1.740	1.350	0.000	-	0.000	0.000	0.000	-	-	0.000	3.090

**Remarks**  
Due to the FY21 -\$0.500M BTR, actual FY21 funding available is \$5.679M.

**D. Acquisition Strategy**  
The C-130J aircraft will be modified using a "block upgrade" strategy. The Communication, Navigation, and Surveillance and Air Traffic Management (CNS/ATM), navigation safety requirement will initially be met in three block upgrades. Block 6.0 development was funded from FY03-07. Block 7.0 started in FY07, and Block 8.1 began in FY12. Subsequently, C-130J modifications will be grouped into smaller updates known as Capability Management Updates (CMU) or Enhancement and Deficiencies (EnD). Other AMC initiatives are upgrades to hardware and software that have arisen after the formation of the block upgrades and CMUs.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Air Force **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
3600 / 7	PE 0401132F / C-130J Program	675061 / C-130J

In order to better manage the fleet and to avoid having to simultaneously support three separate aircraft configurations (Block 6, Block 7 and Block 8.1) the USAF has decided to combine the Block 7 and Block 8.1 mods. This will allow aircraft and trainers to only have to be modified one time.

The proportion of CNS/ATM and navigation safety requirements allocated to Blocks 6.0 through 8.1 was determined via a design trade study conducted by Lockheed Martin (the C-130J prime contractor) and verified by the C-130J system program office and AMC. The development costs are being shared via a global Project Arrangement (PA) by the United States (USAF, USMC, USCG), the United Kingdom, Italy, Australia, Denmark, Canada, and Norway. An international program office (IPO), with USAF lead (Wright Patterson AFB, OH), manages the block upgrades development and CMU efforts. Retrofit of a Block on the aircraft is the responsibility of each nation.

To meet the Federal Aviation Administration 2020 mandate, the USAF installed the Block 8.1 ADS-B Out/Mode V IFF solution on all C-130J variants not scheduled to receive Block 8.1 by January 2020. This is Mod #8649, ADS-B Out Acceleration. All C-130Js will still require Block 8.1.

In order to meet four DoD technology refresh mandates before end of year 2024, the communications modernization program will develop and field a federated and integrated communications system to Blocks 6.0 and 8.1 C-130J variants.

In order to meet the American Mid-Band Initiative, the Station Keeping Equipment (SKE) replacement program will develop and field a new/upgraded formation flight system to Block 6.0 and 8.1 C-130J variants.

In order to comply with FAA mandated frequency remapping and NSA mandated crypto-modernization, the aircraft Link 16 receiver transmitter will need to be upgraded to a next generation receiver. One example of the next generation receiver is the Multifunctional Information Distribution System Joint Tactical Radio System (LINK 16) (MIDS-JTRS) terminal.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675061 / C-130J
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<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</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>			
C-130J Block 8.1, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH	SS/CPFF	Lockheed Martin Information Sytems : Marietta, GA	0.000	1.962	Dec 2020	2.835	Jun 2022	2.058	Feb 2023	-		2.058	0.000	6.855	180.030
C-130J Capability Management Upgrades (CMU), Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH	SS/CPFF	Lockheed Martin Aero : Marietta, GA	0.000	0.000	May 2021	0.000	Mar 2022	0.000		-		0.000	0.000	0.000	20.480
C-130J AMC-Initiatives, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH	SS/CPFF	Lockheed Martin Aero : Marietta, GA	0.000	1.764	Jan 2021	2.154	May 2022	2.500	May 2023	-		2.500	0.000	6.418	14.730
C-130J Enhancement & Deficiencies (EnD), Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH	SS/CPFF	Lockheed Martin Aero : Marietta, GA	0.000	0.000		0.000		0.989	May 2023	-		0.989	0.000	0.989	-
C130J Cooperative Systems and Software Upgrade Requirements Management (COSSURM), Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH	SS/CPFF	Lockheed Martin Aero : Marietta, GA	0.000	-		-		0.000	May 2023	-		0.000	0.000	0.000	-
<b>Subtotal</b>			0.000	3.726		4.989		5.547		-		5.547	0.000	14.262	N/A

**Remarks**  
C-130J Block 8.1 Total Cost is below Target Value of Contract to account for the expected cost reduction initiatives on this Cost Plus Award Fee Contract.

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</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>			
Test and Evaluation	PO	Not specified. : EGLIN, FL	0.000	0.525		0.645	Apr 2022	0.970	Nov 2022	-		0.970	0.000	2.140	-
<b>Subtotal</b>			0.000	0.525		0.645		0.970		-		0.970	0.000	2.140	N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675061 / C-130J
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<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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-130J IPO Support	TBD	N/A : NV	0.000	1.025	Feb 2021	1.045	Feb 2022	1.927	Feb 2023	-		1.927	0.000	3.997	15.014
C-130J COSSURM	TBD	RAF : NV	0.000	0.000		0.090	Apr 2022	0.180	Feb 2023	-		0.180	0.000	0.270	16.548
C-130J Support	TBD	N/A : OH	0.000	0.903	Feb 2021	0.838	Feb 2022	1.008	Feb 2023	-		1.008	0.000	2.749	15.014
<b>Subtotal</b>			0.000	1.928		1.973		3.115		-		3.115	0.000	7.016	N/A

**Remarks**  
The current COSSURM contract is managed by the United Kingdom Royal Air Force (RAF) with the USG taking over as the primary contracting authority in FY23.

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	6.179	7.607	9.632	-	9.632	0.000	23.418	N/A

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675061 / C-130J
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FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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>C-130J</b>	
Block 8.1 Development	
Block 7.0/8.1 Trial Kit Installation (TKI) WC	
CMU 2	
EnD	
COSSURM	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Air Force **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675061 / C-130J
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>C-130J</b>				
Block 8.1 Development	2	2022	4	2024
Block 7.0/8.1 Trial Kit Installation (TKI) WC	2	2022	4	2025
CMU 2	1	2022	1	2025
EnD	3	2023	4	2027
COSSURM	4	2022	4	2027

**Note**  
Communication Modernization program continues under project 675305, starting in FY22.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 3600 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program				<b>Project (Number/Name)</b> 675305 / C-130J Prog			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
675305: C-130J Prog	0.000	0.000	16.505	1.428	0.000	1.428	0.000	0.000	0.000	0.000	0.000	17.933
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

In FY 2022, PE 0401132F, (C-130J Program), Project 675061, (C-130J) efforts were transferred to, Project 675305, (C-130J Prog), in order to create a follow on ACAT III program to separate Communications Modernization from the C-130J ACAT I program.

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

This program includes funding for Mobile User Objective System (MUOS), which began in FY 2020 under project 675061. In FY21, the name of this effort changed to Communication Modernization. Development and integration of the new radio and communication systems including, but not limited to, Mobile User Objective System (MUOS), Second-generation Anti-jam Tactical UHF Radio for NATO (SATURN), Joint Range Extension Application Protocols (JREAP) to modernize Military Satellite Communication System (MILSATCOM), Ultra High Frequency (UHF), High Frequency (HF), special mission processing, and data link messaging. These systems will provide secure, global Line of Sight (LOS) and Beyond Line of Sight (BLOS) satellite voice and data connectivity utilizing modern satellite constellations. Furthermore, these systems will also be integrated into other C-130J capabilities, such as Radio Frequency (RF) components including ALR-69A and DRFM (Digital Radio Frequency Memory Countermeasure). Starting in FY22, funding for this effort will continue under project 675305.

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, 0606398F. In FY 2021 \$0.000 million was expended for civilian pay expenses in this program element, and in FY 2022 \$0.000 million is forecasted for civilian pay expenses in this program element.

This Budget Program Activity Code also included FY22 Congressional Add, in the amount of 10.0M, to upgrade and enhance the digital HUD and Enhanced Vision System (EVS) to improve reliability and replace obsolete parts.

"This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D".

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

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> Communication Modernization	0.000	6.505	1.428	0.000	1.428
<b>Description:</b> Starting in FY 2022, funding for this effort changed from Project 675061, Communication Modernization to Project 675305, Communication Modernization. Development, integration, and testing of the new radio and communication systems including, but not limited to, Mobile User Objective System (MUOS), Second-generation Anti-jam Tactical UHF Radio for NATO (SATURN),					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force	<b>Date:</b> April 2022
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<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675305 / C-130J Prog
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>Joint Range Extension Application Protocols (JREAP) to modernize Military Satellite Communication System (MILSATCOM), Ultra High Frequency (UHF), High Frequency (HF), special mission processing, and data link messaging. These systems will provide secure, global Line of Sight (LOS) and Beyond Line of Sight (BLOS) satellite voice and data connectivity utilizing modern satellite constellations. Furthermore, these systems will also be integrated into other C-130J capabilities, such as Radio Frequency (RF) components including ALR-69A and DRFM (Digital Radio Frequency Memory Countermeasure (DRFM)).</p> <p><b>FY 2022 Plans:</b> Continue development of new radio systems to modernize MILSATCOM.</p> <p><b>FY 2023 Base Plans:</b> Continuation of Comm Modernization NRE for MILSATCOM Mod</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding decreased due to reduced Communication Modernization MILSATCOM Mod program activities.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	6.505	1.428	0.000	1.428

	FY 2021	FY 2022
<p><b>Congressional Add:</b> Digital Heads Up Display (HUD) and Enhanced Vision System (EVS)</p> <p><b>FY 2021 Accomplishments:</b> N/A</p> <p><b>FY 2022 Plans:</b> To upgrade the digital HUD and EVS and to improve reliability and replace obsolete parts</p>	0.000	10.000
<b>Congressional Adds Subtotals</b>	0.000	10.000

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

N/A

**Remarks**

**D. Acquisition Strategy**

In order to meet four DoD technology refresh mandates before end of year 2024, the communication modernization program will develop and field a federated and integrated communications system to Block 6.0 and 8.1 C-130J variants.



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**Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675305 / C-130J Prog
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FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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>C-130J</b>	
Communication Modernization (MILSATCOM)	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Air Force **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401132F / C-130J Program	<b>Project (Number/Name)</b> 675305 / C-130J Prog
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>C-130J</b>				
Communication Modernization (MILSATCOM)	4	2022	3	2024