

UNCLASSIFIED

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

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| 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 0401132F / C-130J Program |
|--|--|

| 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 | 187.081 | 9.924 | 8.640 | 10.674 | 0.000 | 10.674 | 14.324 | 14.262 | 13.806 | 14.058 | Continuing | Continuing |
| 675061: C-130J | 187.081 | 9.894 | 8.640 | 10.674 | 0.000 | 10.674 | 14.324 | 14.262 | 13.806 | 14.058 | Continuing | Continuing |
| 675062: C-130J TRAINERS | 0.000 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.030 |

Program MDAP/MAIS Code: 220

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" updates. Content/requirements for block modifications is documented in International Program Directives (IPDs) as determined in the Cooperative Systems and Software Upgrade Requirements Management (COSSURM) 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 C-130J weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 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.

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Air Force | Date: February 2020 |
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| 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 0401132F / C-130J Program |
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| B. Program Change Summary (\$ in Millions) | FY 2019 | FY 2020 | FY 2021 Base | FY 2021 OCO | FY 2021 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 15.409 | 8.640 | 13.058 | 0.000 | 13.058 |
| Current President's Budget | 9.924 | 8.640 | 10.674 | 0.000 | 10.674 |
| Total Adjustments | -5.485 | 0.000 | -2.384 | 0.000 | -2.384 |
| • 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 | -5.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.485 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -2.384 | 0.000 | -2.384 |

Change Summary Explanation

FY 2019 funding was reduced by \$5.0M for below threshold reprogramming actions.

FY 2021 funding request was reduced by \$2.384M to account for the availability of prior year execution balances.

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| Exhibit R-2A, RDT&E Project Justification: PB 2021 Air Force | | | | | | | | | | Date: February 2020 | | |
| Appropriation/Budget Activity 3600 / 7 | | | | | R-1 Program Element (Number/Name) PE 0401132F / C-130J Program | | | | | Project (Number/Name) 675061 / C-130J | | |
| 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 |
| 675061: C-130J | 187.081 | 9.894 | 8.640 | 10.674 | 0.000 | 10.674 | 14.324 | 14.262 | 13.806 | 14.058 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

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" 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.

This project also provides RDT&E funding for requirements that are outside of the "Block" upgrades, "Capability" updates, or COSSURM process. These efforts may include, but are not limited to, communication, data link, Global Positioning Systems (GPS), electronic warfare, 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 Management Administration (PMA).

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, and systems engineering activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver C-130J weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605831F.

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

| | FY 2019 | FY 2020 | FY 2021 Base | FY 2021 OCO | FY 2021 Total |
|-------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Title: Block 8.1 | 6.802 | 3.985 | 3.174 | - | 3.174 |

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

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

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

| | FY 2019 | FY 2020 | FY 2021 Base | FY 2021 OCO | FY 2021 Total |
|--|---------|---------|--------------|-------------|---------------|
| <p>Description: 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>FY 2020 Plans: Complete development of Block 8.1 ADS-B Out for FY2020 FAA Mandate and begin de-confliction of Dynamic Retasking Capability (DRC) Group A components.</p> <p>FY 2021 Base Plans: Continue de-confliction of Block 8.1 Dynamic Retasking Capability (DRC) and begin Block 8.1 TKI for WC variant.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Funding decrease due to conclusion of Block 8.1 DRC effort.</p> | | | | | |
| <p>Title: Test & Evaluation</p> <p>Description: Test and evaluation planning, conduct and support for developmental and operational testing of Block 8.1.</p> <p>FY 2020 Plans: Continuation of test planning and support for integration efforts.</p> <p>FY 2021 Base Plans: Continuation of test planning and support for integration efforts.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Funding increase due to additional testing required for (DRC) updates.</p> | 0.189 | 0.450 | 0.750 | - | 0.750 |
| <p>Title: Capability Management Update (CMU)</p> <p>Description: CMU 1 and 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</p> | 2.053 | 2.405 | 1.600 | - | 1.600 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2021 Air Force | | Date: February 2020 |
| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0401132F / C-130J Program | Project (Number/Name) 675061 / C-130J |

| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2019 | FY 2020 | FY 2021 Base | FY 2021 OCO | FY 2021 Total |
|--|----------------|----------------|---------------------|--------------------|----------------------|
| 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. FY 2020 Plans: Continuation of Common Core Development, correcting deficiencies and developing enhancements. FY 2021 Base Plans: Continuation of software development for Capability Management Update (CMU) 1 and CMU 2 efforts which will be fielded as Block 8.1.1 and 8.1.2 respectively. FY 2020 to FY 2021 Increase/Decrease Statement: Funding decrease due to reduced CMU 1 (Block 8.1.1) efforts. | | | | | |
| Title: Other AMC Initiatives Description: C-130J initiatives/studies. FY 2020 Plans: Mission Planning software and updates continue. Pod study will be performed. FY 2021 Base Plans: Mission Planning software and updates continue. FY 2020 to FY 2021 Increase/Decrease Statement: Funding decrease due to completion of Pod Study. | 0.850 | 1.500 | 0.450 | - | 0.450 |
| Title: Communication Modernization Description: Starting in FY21 the name of this Major Thrust changed to Communication Modernization from Mobile User Objective System (MUOS), which began in FY 2020. Development 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 and waveforms. FY 2020 Plans: | 0.000 | 0.300 | 4.700 | - | 4.700 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2021 Air Force | | Date: February 2020 |
| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0401132F / C-130J Program | Project (Number/Name) 675061 / C-130J |

| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2019 | FY 2020 | FY 2021 Base | FY 2021 OCO | FY 2021 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Development effort of new MUOS radio systems to begin 4Q FY20 | | | | | |
| <i>FY 2021 Base Plans:</i> Development of new radio systems to modernize MILSATCOM. | | | | | |
| <i>FY 2020 to FY 2021 Increase/Decrease Statement:</i> Funding increase due to development and ramp-up of new radio systems to modernize MILSATCOM. | | | | | |
| Accomplishments/Planned Programs Subtotals | 9.894 | 8.640 | 10.674 | - | 10.674 |

| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
|--|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| <u>Line Item</u> | <u>FY 2019</u> | <u>FY 2020</u> | <u>FY 2021 Base</u> | <u>FY 2021 OCO</u> | <u>FY 2021 Total</u> | <u>FY 2022</u> | <u>FY 2023</u> | <u>FY 2024</u> | <u>FY 2025</u> | <u>Cost To Complete</u> | <u>Total Cost</u> |
| • APAF 05 Line Item C1300J: C-130J Mods | 101.080 | 128.399 | 134.090 | - | 134.090 | 113.127 | 176.751 | 77.076 | 44.270 | 967.212 | 1,742.005 |
| • APAF 02 Line Item C130J0: C-130J | 674.100 | 742.156 | 8.412 | - | 8.412 | 8.585 | 8.737 | 8.895 | 0.000 | 1,612.013 | 3,062.898 |

Remarks

D. Acquisition Strategy

The C-130J aircraft will be modified using a "block upgrade" strategy. The 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). Other AMC initiatives are upgrades to hardware and software that have arisen after the formation of the block upgrades and CMUs.

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.

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

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

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.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Air Force **Date:** February 2020

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

| Product Development (\$ in Millions) | | | | FY 2019 | | FY 2020 | | FY 2021 Base | | FY 2021 OCO | | FY 2021 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 Block 8.1, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH | SS/CPAF | Lockheed Martin Information Sytems : Marietta, GA | 101.722 | 4.481 | Feb 2019 | 1.685 | Nov 2019 | 2.674 | Dec 2020 | 0.000 | | 2.674 | 18.070 | 128.632 | 180.030 |
| C-130J Capability Management Upgrades (CMU), Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH | SS/CPFF | Lockheed Martin Aero : Marietta, GA | 0.888 | 2.053 | Jun 2019 | 2.405 | Nov 2019 | 0.600 | May 2021 | 0.000 | | 0.600 | 10.706 | 16.652 | 20.480 |
| C-130J AMC-Initiatives, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH | SS/CPAF | Lockheed Martin Aero : Marietta, GA | 51.935 | 0.450 | Feb 2019 | 1.500 | Nov 2019 | 0.450 | Dec 2020 | 0.000 | | 0.450 | 4.629 | 58.964 | 14.730 |
| C-130J Communication Modernization, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH | SS/CPAF | Lockheed Martin Aero : Marietta, GA | 0.000 | 0.000 | | 0.000 | | 4.218 | | 0.000 | | 4.218 | 7.900 | 12.118 | - |
| Subtotal | | | 154.545 | 6.984 | | 5.590 | | 7.942 | | 0.000 | | 7.942 | 41.305 | 216.366 | 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.

| Test and Evaluation (\$ in Millions) | | | | FY 2019 | | FY 2020 | | FY 2021 Base | | FY 2021 OCO | | FY 2021 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 | | | |
| Test and Evaluation | C/CPAF | Not specified. : TBD | 1.625 | - | | - | | - | | - | | - | 0.000 | 1.625 | - |
| C-130J Block 8.1 testing | PO | EGLIN AFB : Eglin, FL | 0.697 | 0.435 | Sep 2019 | 0.450 | Nov 2019 | 0.750 | Jan 2021 | 0.000 | | 0.750 | 0.000 | 2.332 | 7.490 |
| Subtotal | | | 2.322 | 0.435 | | 0.450 | | 0.750 | | 0.000 | | 0.750 | 0.000 | 3.957 | N/A |

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Air Force **Date:** February 2020

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| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0401132F / C-130J Program | Project (Number/Name) 675061 / C-130J |
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| Management Services (\$ in Millions) | | | | FY 2019 | | FY 2020 | | FY 2021 Base | | FY 2021 OCO | | FY 2021 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 | 10.246 | 1.301 | Mar 2019 | 1.233 | Mar 2020 | 1.079 | Mar 2021 | 0.000 | | 1.079 | 0.000 | 13.859 | 15.014 |
| C-130J COSSURM | TBD | RAF : NV | 16.548 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 16.548 | 16.548 |
| C-130J Support | TBD | N/A : OH | 3.420 | 1.174 | Mar 2019 | 1.367 | Mar 2020 | 0.903 | Mar 2021 | 0.000 | | 0.903 | 0.000 | 6.864 | 15.014 |
| Subtotal | | | 30.214 | 2.475 | | 2.600 | | 1.982 | | 0.000 | | 1.982 | 0.000 | 37.271 | N/A |

Remarks
The COSSURM contract is managed by the United Kingdom Royal Air Force (RAF).

| | Prior Years | FY 2019 | FY 2020 | FY 2021 Base | FY 2021 OCO | FY 2021 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
| Project Cost Totals | 187.081 | 9.894 | 8.640 | 10.674 | 0.000 | 10.674 | 41.305 | 257.594 | N/A |

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Air Force **Date:** February 2020

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

| 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 |

| | |
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| C-130J | |
| Block 8.1 Development | |
| Block 7.0/ 8.1 Trial Kit Installation (TKI) WC | |
| CMU | |
| Communication Modernization | |

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Air Force **Date:** February 2020

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

Schedule Details

| Events by Sub Project | Start | | End | |
|--|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| C-130J | | | | |
| Block 8.1 Development | 1 | 2019 | 4 | 2022 |
| Block 7.0/ 8.1 Trial Kit Installation (TKI) WC | 1 | 2021 | 4 | 2025 |
| CMU | 1 | 2019 | 4 | 2024 |
| Communication Modernization | 1 | 2021 | 4 | 2024 |

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

| Appropriation/Budget Activity 3600 / 7 | | | | | R-1 Program Element (Number/Name) PE 0401132F / C-130J Program | | | | Project (Number/Name) 675062 / C-130J TRAINERS | | | |
|--|-------------|---------|---------|--------------|--|---------------|---------|---------|--|---------|------------------|------------|
| 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 |
| 675062: C-130J TRAINERS | 0.000 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.030 |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

A. Mission Description and Budget Item Justification

This project will enhance aircrew simulator fidelity utilizing aircraft flight tests to gather data to accurately emulate ground effect, nose wheel and engine-out data points. Currently the simulator is approved to accomplish only 50% of annual assault landings. This added capability will allow more training to be accomplished in the simulator so the aircraft will be available for more real world missions. The ability to accomplish more training in the simulator also reduces the annual aircraft O&M requirement.

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

| | FY 2019 | FY 2020 | FY 2021 Base | FY 2021 OCO | FY 2021 Total | | | | | |
|--|---------|---------|--------------|-------------|---------------|-------|-------|-------|-------|-------|
| Title: Aero Data Collection - Documentation | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 | | | | | |
| Description: Utilize aircraft flight tests, gather data for simulator to accurately emulate ground effect, nose wheel and single engine data points to make simulator land like the aircraft. Simulator is currently approved to accomplish only 50% of assault landings. Effort includes aircraft modification to collect all data points and de-modification after data collection to return aircraft to previous status. | | | | | | | | | | |
| FY 2020 Plans: N/A | | | | | | | | | | |
| FY 2021 Base Plans: N/A | | | | | | | | | | |
| FY 2021 OCO Plans: N/A | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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

N/A

Remarks

D. Acquisition Strategy

One C-130J will be instrumented to collect data during takeoff, approach and landing phases of flight. This data will be used to enable the C-130J Weapon System Trainers to more accurately emulate ground effect, nose wheel, and engine out data points so the simulator will land more like the aircraft. The ability to accomplish more training in the simulator also reduces the annual aircraft O&M requirement.

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Air Force **Date:** February 2020

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| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0401132F / C-130J Program | Project (Number/Name) 675062 / C-130J TRAINERS |
|--|--|--|

| 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 |

| | |
|------------------------------------|------------|
| C-130J Trainers | |
| Aero Data Collection Documentation | [REDACTED] |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2021 Air Force | | Date: February 2020 |
| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0401132F / C-130J Program | Project (Number/Name) 675062 / C-130J TRAINERS |

Schedule Details

| Events by Sub Project | Start | | End | |
|------------------------------------|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| C-130J Trainers | | | | |
| Aero Data Collection Documentation | 1 | 2019 | 4 | 2019 |