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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Air Force **Date:** March 2023

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| Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force / BA 7: Operational Systems Development</i> | R-1 Program Element (Number/Name) PE 0401218F / KC-135s |
|--|---|

| COST (\$ in Millions) | Prior Years | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total | FY 2025 | FY 2026 | FY 2027 | FY 2028 | Cost To Complete | Total Cost |
|--------------------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | - | 3.461 | 12.955 | 51.105 | 0.000 | 51.105 | 33.084 | 20.589 | 0.000 | 0.000 | 0.000 | 121.194 |
| 675261: <i>KC-135 Upgrades</i> | - | 3.461 | 12.955 | 51.105 | 0.000 | 51.105 | 33.084 | 20.589 | 0.000 | 0.000 | 0.000 | 121.194 |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | - | - |

Note
 This program, BA 7, PE 0401218F, project 675261, KC-135 Winglets, is a new start.

A. Mission Description and Budget Item Justification

The KC-135 is the US Air Force's aerial refueling workhorse. In FY 2022, USAF KC-135s offloaded 73,083,521 gallons of fuel and refueled 44,408 aircraft in support of global operations. The KC-135 provides air refueling through either the refueling boom or drogue. As a cargo aircraft, the C/KC-135 can carry six (6) standard 463-L pallets. KC-135 modernization funding is vital to ensure the KC-135 fleet can support global aerial refueling operations to 2050 and beyond. RDT&E efforts include but are not limited to Mobile User Objective System, COMM2 Crypto & Data, High Frequency Modernization, Center Console Refresh, and Winglets.

1. Mobile User Objective System (MUOS): Integration and test for MUOS-capable radios on Block 45 aircraft in the COMM 3 position with Beyond Line-of-Sight (BLOS) Integrated Waveform (IW) and LOS SATURN capability with HAVE QUICK II backward compatibility. The KC-135 fleet must comply with the National Security Agency (NSA) mandate or will lose secure communications, which significantly degrades its ability to support worldwide operations. The ARC-210 Gen 3 radios have Diminishing Manufacturing Sources and Material Shortages (DMSMS) and will become obsolete on the CEASEKEY date. Requirement: AMC's 10-050 Crypto, 15-046 MUOS, 16-053 SATURN, and 17-039 IW.
2. Center Console Refresh (CCR) will reduce maintenance man-hours, increase reliability and extend the KC-135 service life to 2040+ by providing a platform for Digital Flight Instrumentation and future growth. Obsolescence of the Integrated Fuel Management Panel (IFMP), Fuel Management Advisory Computer (FMAC), Multi-Function Displays (MFD), Control Display Unit (CDU), and Tank Interface Unit (TIU) is the primary focus. FMAC components are not procurable, MFDs were not supportable after 2021, the TIU will become non-supportable in 2024, and the CDU manufacture announced End of Life to the supply chain in 2022. Requirement: AMC's 22-009 CCR
3. High Frequency (HF) Modernization: Integration and test to replace legacy HF radio with a modernized HF radio on KC-135 aircraft. A modernized HF communications capability is necessary to enable future sustainability and growth to operate in satellite communications (SATCOM)-denied environment while maintaining global, secure voice and data between Mobility Air Forces' aircraft and command and control (C2) agencies to exchange classified information. Requirement: AMC's 18-100 Modernized HF.
4. COMM2 Crypto and Data: Integration and test for ARC-210 Gen 3 radio replacement in the COMM 2 position with secure voice and SATURN capability with HAVE QUICK II backward compatibility, and a replacement solution for the Very High Frequency (VHF) Data Link (VDL)-2000. The KC-135 fleet must comply with the NSA mandate or will lose secure communications which significantly degrades its ability to support worldwide operations. The ARC-210 Gen 3 radios have DMSMS and

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become obsolete on the CEASEKEY date. VDL replacement is required for civil airspace compliance. Requirement: AMC's 10-050 Crypto, 16-053 SATURN, 22-033 VDL Solution, and 20-048 Controller Pilot Data Link Communications (CPDLC) Upgrade.

5. Winglets: Research and development of winglets for KC-135 aircraft to increase operational energy. This effort continues Air Force Research Laboratory's initial prototyping.

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 2022, \$0.000M was expended for civilian pay expenses in this program element, and in FY 2023, \$0.680M 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.

| B. Program Change Summary (\$ in Millions) | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 3.564 | 12.955 | 7.266 | 0.000 | 7.266 |
| Current President's Budget | 3.461 | 12.955 | 51.105 | 0.000 | 51.105 |
| Total Adjustments | -0.103 | 0.000 | 43.839 | 0.000 | 43.839 |
| • 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 | -0.103 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 43.839 | 0.000 | 43.839 |

Change Summary Explanation

FY 2024 funds increased by \$43.839M for CCR, HF modernization, COMM2 C&D, and Winglets requirements.

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total |
|--|----------------|----------------|---------------------|--------------------|----------------------|
| Title: KC-135 MUOS radio | 3.461 | 5.590 | 5.030 | 0.000 | 5.030 |
| Description: The KC-135 COMM 3 position requires an upgraded radio with MUOS (Mobile User Objective System), IW (Integrated Waveform), SATURN (second-generation anti-jam tactical UHF for NATO capabilities) | | | | | |

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| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total |
|--|---------|---------|--------------|-------------|---------------|
| <p>and BLOS and LOS secure voice and data connectivity. This upgrade derives from an NSA cryptographic modernization mandates and DoD MUOS/SATURN transition directive.</p> <p>If requirements are not met, the KC-135 will not have secure military Satellite Communications (SATCOM) radio capability needed to communicate with the Joint Force, other MAF aircraft, and C2 agencies.</p> <p>The KC-135 MUOS radio program replaces the existing ARC-210 Gen 3 radio with a cryptographic modernized, MUOS-capable, ARC-210 Gen 6 radio. Integration of this new radio requires remote control unit, high power amplifier, low noise amplifier, software and associated wiring and hardware.</p> <p>FY 2023 Plans: Continue software integration efforts.</p> <p>FY 2024 Base Plans: Complete integration efforts with software release.</p> <p>FY 2024 OCO Plans: N/A</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funds decreased due to Engineering and Manufacturing Development (EMD) efforts ramping down 4QFY24.</p> | | | | | |
| <p>Title: KC-135 Winglets</p> <p>Description: This program adds winglets to the left and right outboard wing section of KC-135 aircraft. The winglets use Active Load Alleviation Control System (ALACS) that will decrease stress loads throughout the entire wing body. Winglets reduce aircraft drag and increase fuel efficiency. Scope: TBD fleet size. Air Force Research Laboratory (AFRL) projects fuel savings of approximately \$35-56M annually, based on simulations and anticipated improved operational benefits.</p> <p>In FY 2024, PE 0604858F, Tech Transition Program, Project 645351, Prototyping effort was transferred to PE 0401218F, KC-135s, in order to Integrate and Test on the KC-135.</p> <p>FY 2024 Base Plans: Integration, preliminary design and test efforts ongoing at the AFRL.</p> <p>FY 2024 OCO Plans:</p> | - | - | 15.000 | 0.000 | 15.000 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Air Force | | | Date: March 2023 | | | | |
| 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 0401218F / KC-135s | | | | | |
| C. Accomplishments/Planned Programs (\$ in Millions) | | | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total |
| N/A | | | | | | | |
| FY 2023 to FY 2024 Increase/Decrease Statement: Funding increased due to contract awards, flight tests, and support activities. | | | | | | | |
| Title: Center Console Refresh | | | 0.000 | 2.307 | 13.564 | 0.000 | 13.564 |
| Description: CCR addresses obsolescence of the Integrated Fuel Management Panel (IFMP), Fuel Management Advisory Computer (FMAC), Multi-Function Displays (MFD), Control Display Unit (CDU), and Tank Interface Unit (TIU). The IFMP repair facility declined to renew the repair contract, FMAC components are not procurable, MFDs were not supportable after 2021, the TIU will become non-supportable in 2024, and the CDU manufacture announced End of Life to the supply chain in 2022. Due to the integration of new components, additional items may be replaced or modified based on the selected integrator's bid: the Angle of Attack Indicator, Annunciator Lights, Clock, Electronic Engine Instrument Display (EEID), Free Air Temperature Gauge, Fuel Temperature Gauge, Hydraulic Quantity Gauge, Standby Airspeed Indicator, Altimeter, and Standby Altitude Indicator. This will reduce maintenance man-hours, increase reliability and extend the KC-135 service life to 2040+ by providing a platform for Digital Flight Instrumentation and future growth. | | | | | | | |
| FY 2023 Plans: CCR contracting activities to include source selection, digital transformation efforts, and agile testing. | | | | | | | |
| FY 2024 Base Plans: CCR contracting activities to include source selection and development for five line replaceable units (LRUs) within the Fuel System and Flight Display Systems. | | | | | | | |
| FY 2024 OCO Plans: N/A | | | | | | | |
| FY 2023 to FY 2024 Increase/Decrease Statement: Funding increased due to ramp up of CCR contracting activities for source selection to develop LRUs. | | | | | | | |
| Title: High Frequency Modernization | | | 0.000 | 0.300 | 8.300 | 0.000 | 8.300 |
| Description: This modification replaces the legacy HF radio with a modernized HF radio on KC-135 aircraft to operate in a SATCOM-denied environment while maintaining global, secure voice/data between Mobility Air Forces' aircraft and command and control (C2) agencies to exchange classified information. This complies with DoD directive to modernize HF capability. | | | | | | | |

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

| | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total |
|--|---------|---------|--------------|-------------|---------------|
| <p>If requirements are not met, then KC-135 aircraft loses BLOS communication capability with MAF aircraft and C2 agencies if satellite connectivity is lost. Additionally, KC-135 aircraft loses the capability to use HF for Air Traffic Control communication during transoceanic flights.</p> <p>This form fit radio replaces the current ARC-190 radio with the new ARC-260 radio.</p> <p>FY 2023 Plans: Begin Engineering and Manufacturing Development efforts for new start program.</p> <p>FY 2024 Base Plans: Initial testing and integration of modernized HF radio and communications capabilities.</p> <p>FY 2024 OCO Plans: N/A</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funds increase due to ramp up of EMD efforts and acquire software integration lab assets and continue EMD effort.</p> | | | | | |
| <p>Title: COMM2 Crypto and Data Program.</p> <p>Description: This effort replaces the ARC-210 Gen 3 radio in the COMM 2 position with secure voice and SATURN capability with HAVE QUICK II backward compatibility, and a replacement solution for the VDL-2000. ARC-210 Gen 3 radios on KC-135 aircraft have DMSMS and are approaching end of life, becoming obsolete on the NSA-mandated CEASEKEY date. VDL replacement is required for civil airspace compliance. This effort complies with the Cryptographic Mandate 1.</p> <p>If requirements are not met, KC-135 aircraft risk ineffective communications via unsecure voice, lose data communications, anti-jam capabilities, and realize limited maintenance capabilities to support legacy radios. This will significantly degrade the ability to support worldwide operations.</p> <p>This modification will include Integration and Test of updated Operating Flight Plan software and Prototype; ARC-210 Gen 6 to replace the current Gen 3; removal of VDL, integrate and replace with VHF-4000E; A-kit production, acquire B-kit, and Over and Above (to include non-warranty repairs).</p> <p>FY 2023 Plans:</p> | 0.000 | 4.758 | 9.211 | 0.000 | 9.211 |

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| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total |
|---|----------------|----------------|-------------------------|------------------------|--------------------------|
| Contract activities for initial integration of ARC-210 Gen 6 radio and VDL replacements. FY 2024 Base Plans: Contract activities for integration of ARC-210 Gen 6 radio and VDL replacements. FY 2024 OCO Plans: N/A FY 2023 to FY 2024 Increase/Decrease Statement: Funds increase due to ramping up Integration and Test efforts of COMM 2 to complete integration at the same time as MUOS/COMM3. | | | | | |
| Accomplishments/Planned Programs Subtotals | 3.461 | 12.955 | 51.105 | 0.000 | 51.105 |

| D. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
|--|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| Line Item | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total | FY 2025 | FY 2026 | FY 2027 | FY 2028 | Cost To Complete | Total Cost |
| • APAF 05 C13500: C-135 | 58.776 | 144.557 | 153.595 | - | 153.595 | 184.956 | 186.983 | 183.527 | 167.369 | 0.000 | 1,079.763 |
| • APAF 05 C13500 | 0.000 | 0.497 | 1.137 | - | 1.137 | 1.613 | 3.118 | 6.280 | 4.286 | 0.000 | 16.931 |
| (1)...: <i>Initial Spares</i> | | | | | | | | | | | |

Remarks

E. Acquisition Strategy
KC-135 MUOS acquisition strategy addresses cryptographic modernization mandates and DoD directives by executing a 28 month, Sole Source, Cost Plus Fixed Fee EMD contract followed by a five-year production and installation effort.

KC-135 MUOS Radio Major Events/Milestones: Critical Design Review 3QFY23; Development Testing/Operational Testing 3QFY24; Milestone-C 4QFY24

Center Console Refresh (CCR)
Planned ASP approval 2QFY23
Planned Award 2QFY24

KC-135 HF radio acquisition strategy addresses HF modernization mandates and DoD directives by executing a 12 month, Sole Source, Cost Plus Fixed Fee EMD contract followed by a three-year procurement (AFLCMC/WNY will maintain the production contract with BAE) and installation effort.

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| High Frequency Modernization Major events: Program start-up, Early Strategy and Issues Session 3QFY23 | | |
| COMM2 Crypto & Data acquisition strategy addresses crypto modernization mandates and DoD directives by executing a 15 month, Sole Source, Cost Plus Fixed Fee EMD contract followed by a five-year production and installation effort. | | |
| KC-135 Winglets Planned ASP approval 3QFY24 Planned Award 4QFY24 | | |

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force **Date:** March 2023

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| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0401218F / KC-135s | Project (Number/Name) 675261 / KC-135 Upgrades |
|--|---|--|

| Product Development (\$ in Millions) | | | | FY 2022 | | FY 2023 | | FY 2024 Base | | FY 2024 OCO | | FY 2024 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 | | | |
| MUOS Radios Product Development (Integration) | SS/CPFF | Collins Aerospace : Cedar Rapids, IA | - | 3.424 | Sep 2022 | 5.065 | Mar 2023 | 4.400 | Oct 2023 | - | | 4.400 | Continuing | Continuing | - |
| COMM 2 Crypto and Data Radio Product Development | SS/CPFF | Collins Aerospace : Cedar Rapids, IA | - | - | | 3.541 | May 2023 | 7.493 | Mar 2024 | - | | 7.493 | Continuing | Continuing | - |
| COMM 2 Crypto and Data Long Lead B-Kit Procurement for RDT&E | MIPR | Not specified. : TBD | - | - | | 0.580 | Mar 2023 | 0.290 | Oct 2023 | - | | 0.290 | Continuing | Continuing | - |
| HF Radio integration | SS/CPFF | Not specified. : TBD | - | - | | - | | 4.632 | Apr 2024 | - | | 4.632 | Continuing | Continuing | - |
| Center Console Refresh Product Development | C/FPIF | Not specified. : TBD | - | - | | - | | 12.194 | Mar 2024 | - | | 12.194 | Continuing | Continuing | - |
| Winglets Development | C/CPAF | Not specified. : TBD | - | - | | - | | 11.000 | Mar 2024 | - | | 11.000 | Continuing | Continuing | - |
| Subtotal | | | - | 3.424 | | 9.186 | | 40.009 | | - | | 40.009 | Continuing | Continuing | N/A |

| Support (\$ in Millions) | | | | FY 2022 | | FY 2023 | | FY 2024 Base | | FY 2024 OCO | | FY 2024 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 | | | |
| MUOS Support | Various | Not specified. : TBD | - | 0.037 | May 2023 | 0.018 | Nov 2023 | 0.017 | Mar 2024 | - | | 0.017 | Continuing | Continuing | - |
| HF Radio (Travel) | Various | Not specified. : TBD | - | - | | 0.050 | Apr 2023 | 0.030 | Mar 2024 | - | | 0.030 | Continuing | Continuing | - |
| COMM2 (Travel) | Various | Not specified. : TBD | - | - | | - | | 0.029 | Mar 2024 | - | | 0.029 | Continuing | Continuing | - |
| Winglets (Travel) | Various | Not specified. : TBD | - | - | | - | | 0.583 | Mar 2024 | - | | 0.583 | Continuing | Continuing | - |
| Subtotal | | | - | 0.037 | | 0.068 | | 0.659 | | - | | 0.659 | Continuing | Continuing | N/A |

| Test and Evaluation (\$ in Millions) | | | | FY 2022 | | FY 2023 | | FY 2024 Base | | FY 2024 OCO | | FY 2024 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 | | | |
| HF Test and Evaluation (Integration) | TBD | Not specified. : TBD | - | - | | - | | 1.415 | Mar 2024 | - | | 1.415 | Continuing | Continuing | - |
| Winglets Flight Test and Certification | TBD | Not specified. : TBD | - | - | | - | | 2.500 | Mar 2024 | - | | 2.500 | Continuing | Continuing | - |

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| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0401218F / KC-135s | Project (Number/Name) 675261 / KC-135 Upgrades |
|--|---|--|

| Test and Evaluation (\$ in Millions) | | | | FY 2022 | | FY 2023 | | FY 2024 Base | | FY 2024 OCO | | FY 2024 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 | | | |
| Subtotal | | | - | - | | - | | 3.915 | | - | | 3.915 | Continuing | Continuing | N/A |

| Management Services (\$ in Millions) | | | | FY 2022 | | FY 2023 | | FY 2024 Base | | FY 2024 OCO | | FY 2024 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 | | | |
| CCR Dir Cite Auth Civ Pay | TBD | System Program Office : Tinker AFB, OK | - | - | | 0.680 | Mar 2023 | 1.370 | | - | | 1.370 | Continuing | Continuing | - |
| CCR RFP and Source Selection | TBD | System Program Office : Tinker AFB, OK | - | - | | 1.627 | Apr 2023 | - | | - | | - | Continuing | Continuing | - |
| MUOS (PSC) | Various | Not specified. : TBD | - | - | | 0.154 | Jul 2023 | 0.481 | Jul 2024 | - | | 0.481 | Continuing | Continuing | - |
| MUOS OGC | Various | Not specified. : TBD | - | - | | 0.353 | Apr 2023 | 0.132 | Mar 2024 | - | | 0.132 | Continuing | Continuing | - |
| HF (OGC) | Various | System Program Office : Tinker AFB, OK | - | - | | 0.240 | Apr 2023 | 1.430 | Mar 2024 | - | | 1.430 | Continuing | Continuing | - |
| HF (PSC) | Various | Not specified. : TBD | - | - | | 0.010 | Apr 2023 | 0.793 | Mar 2024 | - | | 0.793 | Continuing | Continuing | - |
| COMM 2 CRYPTO PSC | Various | Not specified. : TBD | - | - | | 0.154 | Apr 2023 | 0.520 | Mar 2024 | - | | 0.520 | Continuing | Continuing | - |
| COMM2 CRYPTO OGC | Various | Not specified. : TBD | - | - | | 0.483 | Apr 2023 | 0.879 | Jul 2024 | - | | 0.879 | Continuing | Continuing | - |
| Winglets (PSC) | C/TBD | Not specified. : TBD | - | - | | - | | 0.917 | Mar 2024 | - | | 0.917 | Continuing | Continuing | - |
| Subtotal | | | - | - | | 3.701 | | 6.522 | | - | | 6.522 | Continuing | Continuing | N/A |

| | Prior Years | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total | Cost To Complete | Total Cost | Target Value of Contract | |
|----------------------------|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|-----|
| Project Cost Totals | | - | 3.461 | 12.955 | 51.105 | - | 51.105 | Continuing | Continuing | N/A |

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Air Force **Date:** March 2023

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| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0401218F / KC-135s | Project (Number/Name) 675261 / KC-135 Upgrades |
|--|---|--|

| FY 2022 | | | | FY 2023 | | | | FY 2024 | | | | FY 2025 | | | | FY 2026 | | | | FY 2027 | | | | FY 2028 | | | |
|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| 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 |

| | |
|--------------------------------------|--|
| KC-135 MUOS Radio | |
| EMD, Test, and MS C | |
| COMM 2 Crypto and Data | |
| Long Lead B-Kit components for RDT&E | |
| Contract award, EMD and Test | |
| HF Modernization | |
| Contract award, EMD and test | |
| Center Console Refresh (CCR) | |
| Contract award, EMD and Test | |
| Winglets | |
| Contract award, EMD and Test | |

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force **Date:** March 2023

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| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0401218F / KC-135s | Project (Number/Name) 675261 / KC-135 Upgrades |
|--|---|--|

Schedule Details

| Events by Sub Project | Start | | End | |
|--------------------------------------|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| KC-135 MUOS Radio | | | | |
| EMD, Test, and MS C | 2 | 2022 | 4 | 2024 |
| COMM 2 Crypto and Data | | | | |
| Long Lead B-Kit components for RDT&E | 3 | 2023 | 4 | 2024 |
| Contract award, EMD and Test | 3 | 2023 | 4 | 2024 |
| HF Modernization | | | | |
| Contract award, EMD and test | 3 | 2023 | 3 | 2025 |
| Center Console Refresh (CCR) | | | | |
| Contract award, EMD and Test | 2 | 2024 | 4 | 2027 |
| Winglets | | | | |
| Contract award, EMD and Test | 3 | 2024 | 2 | 2025 |