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

<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 0207133F / <i>F-16 Squadrons</i>
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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	-	241.482	98.633	106.952	0.000	106.952	199.054	185.414	112.794	115.020	0.000	1,059.349
672671: <i>F-16 Squadrons</i>	-	241.482	98.633	106.952	0.000	106.952	199.054	185.414	112.794	115.020	0.000	1,059.349
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

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

The F-16 is a multi-role fighter that comprises roughly 40% of the USAF fighter fleet with over 850 aircraft supporting a variety of air-to-air and air-to-surface missions, such as offensive and defensive counter-air, close air support, forward air control, air interdiction (day/night and all-weather) and Suppression of Enemy Air Defenses (SEAD)/Destruction of Enemy Air Defenses (DEAD). F-16 posture and readiness combined with low operating costs deliver affordable capacity for the USAF and partner nations. Its capabilities continue to evolve, capitalizing upon advancements made in computers, avionics systems, engines, and structural technologies. These advancements meet emerging warfighter requirements to combat current and evolving enemy threats. Funding described in this document provides upgrades to the F-16 platform necessary for the delivery of joint lethality in the coming decades. These computer processing and avionics upgrades are critical to a modernized architecture compatible with current open, agile, and digital concepts that will maintain platform viability into the 2040s. Pending the delivery of the force structure plan required by the 2024 NDAA, the expected tail count will be reduced to 704 by the end of FY27. Initial divestments reduce the Pre-Block fleet (Blocks 30 & 32) to 100 aircraft and retain 604 of the Post-Block aircraft (Block 40, 42, 50 & 52). Post-Block and Pre-Block F-16s have similar capabilities and are interoperable but require some independent modernization and sustainment of hardware, software, and training. The F-16 Foreign Military Sales (FMS) Program is one of the largest in DoD, providing assurance to 28 partners and growing. F-16 remains in production in South Carolina and additional nations continue to commit to new aircraft purchases through the FYDP and beyond.

RDT&E efforts include, but are not limited to, enduring programs for Operational Flight Program (OFF) Software (SW) development, Integrated Test activities, hardware (HW) mods, Engineering Manufacturing and Design (EMD) Hardware/Advanced capability improvements, and Diminishing Manufacturing Sources (DMS); programs ending funded development activities for Active Electronically Scanned Array (AESA) Radar Software, Integrated Viper Electronic Warfare Suite (IVEWS), Training Simulator OFF development concurrency, and M-Code; and programs nearing full development completion for Modular Mission Computer (MMC) Upgrade/Programmable Display Generator (PDG) Upgrade, Comm Suite Radio Upgrade (CSU), Multi-functional Information Distribution System-Joint Tactical Radio System (MIDS-JTRS), and Advanced Identification Friend or Foe (AIFF-Mode 5) APX-127.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program's funds would be in addition to the civilian pay expenses budgeted in program element 0207133F, 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23, 7.070M was expended for civilian pay expenses in this program element, and in FY24 7.686M is forecasted for civilian pay expenses in this program element.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2025 Air Force	<b>Date:</b> March 2024
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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 0207133F / <i>F-16 Squadrons</i>
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This program element may include necessary emergent or unanticipated civilian pay expenses required to manage, execute, and delivery F-16 modifications for emergent or unanticipated weapon system capability. The use of such program funds would be in addition to civilian pay expenses budgeted in program element 0605828F.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	247.536	98.633	117.307	0.000	117.307
Current President's Budget	241.482	98.633	106.952	0.000	106.952
Total Adjustments	-6.054	0.000	-10.355	0.000	-10.355
• 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	-0.544	0.000			
• SBIR/STTR Transfer	-5.510	0.000			
• Other Adjustments	0.000	0.000	-10.355	0.000	-10.355

**Change Summary Explanation**

FY23 reductions comprised of -\$5.510M for Small Business Innovative Research (SBIR) reduction; -\$4.103 for FY23-42PA reprogramming; -\$0.573 for UPAD and +\$4.132M for Internal Reprogramming FY23-35IR  
 FY25 reduced -10.355M for M Code Device repurpose

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<b>Title:</b> OFP Updates on all F-16 aircraft	74.952	79.201	98.915
<b>Description:</b> OFP versions are updated continually to integrate new mission capabilities, weapons, targeting pods, and improved avionics. F-16 OFPs are developed 100% organically by the 309th Software Engineering Group (SWEG) at Hill AFB, UT. Increment 2 OFP is comprised of annual OFP production releases consisting of pre-block called "SCU" and post-block "M-Series" software releases. Main thrusts will integrate new precision weapons, advanced targeting pods, and improved avionics to meet DoD mandates in order to modernize the F-16's architecture. Systems Integration Labs (SILs) are required to integrate software into the various hardware, validate user requirements, and review system safety and security prior to release to flight test. These labs require annual upgrades to increase development and test efficiencies which also includes Development-Security-Operations (DevSecOps) technologies. The OFP effort also contains Program Management Administration (PMA) support activities to			

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
include, but are not limited to, travel, office supplies, training courses, Video Teleconferencing (VTC), support contractors, and to support flight test personnel and equipment in order to keep facilities active.				
<b>FY 2024 Plans:</b> Finalize candidates and begin fielding Increment 2 releases (spans FY24-FY27) M7.4 and SCU 12 capability while maintaining and upgrading portions of the SIL. Bolster Cyber Security defenses and implement secure network infrastructure to enable large data transfers between CONUS and OCONUS bases. Provide secure data management/cloud services for storage of large amounts of flight test/operational data.				
<b>FY 2025 Plans:</b> Develop requirements and field Increment 2 (spans FY24-FY27) SCU 13 OFP with the following software candidates: Comm Suite MUOS integration, M-Code, AESA radar function on tactical awareness display (TAD), threat correlation, JASSM Dynamic Targeting Phase II while maintaining and upgrading portions of the SIL. Develop requirements and Field Increment 2(INC 2) M-Series M8.1 (Phase 1) OFP with the following major candidates: AESA phase III, Comm Suite upgrade, JASSM Dynamic Targeting Phase II, MIDS-JTRS queuing, common flexible weapons ICD integration, and Enhanced Data Link (EDL) while maintaining and upgrading portions of the SIL to the M8.1 OFP baseline. Continue bolstering Cyber Security defenses and implementation of secure network infrastructure to enable large data transfers between CONUS and OCONUS bases. Execute secure data management/cloud services for storage of large amounts of flight test/operational data to allow rapid agile OFP software fixes to meet crucial operational CONUS and OCONUS needs.				
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Increase due to Increment 2 requirements ramping up in FY25 for testing and fielding and initiate standup of Cyber Software Integration Labs (SILs)				
<b>Title:</b> F-16 Integrated Test		15.964	11.997	8.037
<b>Description:</b> Description: Flight Test previously justified under F-16 Other Mods has been separated to an additional program code "F-16 Integrated Test" Mod EDP000. F-16 Integrated Test provides Developmental and Operational flight testing (DT/OT) for programs across the USAF F-16 programs. Integrated Test funding includes scheduling, managing, and performing sorties, providing test infrastructure (including chase aircraft), facilities, range support, aircraft maintenance, test aircraft modifications, instrumentation, test planning, analysis and test reports required to complete F-16 OFP software and hardware development.  Supports F-16 DT/OT infrastructure, facilities (including Special Access Program Facilities (SAP-F)) and communications, contractor support and personnel to enable all other F-16 flight testing and required modifications at Eglin, Edwards and Nellis AFBs. Continued test aircraft instrumentation updates and relocation due to support current and future program displacement. Procurement of captive carry and live fire weapon integration assets and other weapons for F-16 OFP DT/OT.				

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p><b>FY 2024 Plans:</b> Completion of F-16 Systems Integration Unit (SIU), SCU-12 and M7.4 Operational flight Program (OFP), Active Electronically Scanned Array (AESA) radar Phase 3.2, Comm Suite Upgrade (CSU), and Multifunctional Information Distribution System (MIDS)/ Joint Tactical Radio System (JTRS) firmware updates DT/OT at Eglin, Edwards, and Nellis AFBs. F-16 OFP DT/OT flight test support for Viper Experimentation and Next-gen Operations Model (VENOM) technology development, Integrated Viper Electronic Warfare System (IVEWS), APG-83 radar Combat IDentification (CID) and maritime capabilities requested by ACC, and M8.1 OFP Rehost: Modular Mission Computer (MMC) upgrade, Programmable Display Generator (PDG) upgrade, High Speed Data Network (HSDN), Secure Mission Data System (SMDS) including Auto Ground Collision Avoidance System (A-GCAS) DT/OT to enable Ethernet comms. Start of Wide-Angle Convention (WAC) Heads Up Display (HUD) qualification testing.</p> <p><b>FY 2025 Plans:</b> Completion of F-16 SCU-13 DT/OT, SCU 14 DT/OT, and M-Series 8.06 / AESA Phase 3.3 DT addressing new radar CID and other classified requirements. Completion of SMDS with A-GCAS DT. Completion of Standby Attitude Indicator (SAI), WAC HUD qualification testing, and Advanced Central Air Data Communications Converter (ACADCC) re-qual. Continuation of M8.1 DT/OT for Rehost of OFP enabling Ethernet. Support for F-16 OFP DT/OT flight test of cybersecurity upgrades, VENOM, IVEWS, MMC, PDG, HSDN, and SMDS with A-GCAS OT. Initial DT/OT of F-16 M8.2 OFP as well as various hardware subsystem upgrades. DT for Brake Controller System (BCS), Advanced Programmable Signal Processor (APSP), Digital flight Control Computer (DFLCC) power supply, and preliminary integration of Advanced Anti-Radiation Guided Missile-Extended Range (AARGM-ER). Significant instrumentation re-design and installation for aged Flight Sciences aircraft for Eglin SEEK EAGLE DT to enable F-16 SEEK EAGLE certification requirements DT.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease due to the completion of F-16 SCU-13 DT/OT, SCU 14 DT/OT, and M-Series 8.06 / AESA Phase 3.3 DT addressing new radar CID and other classified requirements.</p>				
<p><b>Title:</b> EMD HW/Advanced Capabilities Improvements</p> <p><b>Description:</b> Advanced Capability Improvements include, but are not limited to, sensor upgrades, radar updates and other self- protection/electronic protection (EP) enhancements, 4th/5th gen fighter network communications, Radio Frequency (RF) compatibility, requirements and studies analysis, lab, and/or on-aircraft evaluation of potential subsystem changes / capability improvements, and battery replacement.</p> <p><b>FY 2024 Plans:</b></p>		4.817	0.000	0.000

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
EMD HW/Advanced Capabilities Improvements funded efforts complete. <b>FY 2025 Plans:</b> N/A <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> N/A				
<b>Title:</b> Modular Mission Computer (MMC) / Programmable Display Generator (PDG) Upgrade on F-16 aircraft <b>Description:</b> The MMC upgrade on the F-16 post-block aircraft, (Blk 40, 42, 50, 52) resolves shortfalls in mission computer processing, memory and throughput. MMC upgrade also incorporates new cybersecurity protection for avionics sub-systems and is the key component to support full AESA Radar capability. Funding includes development, design, integration, and ground/flight test for fielding of improved MMC capabilities with the Increment 1 OFP. The PDG upgrade allows a fully integrated multifunction display solution including Hands On Throttle and Stick (HOTAS) integration with Sensor of Interest (SOI), format swapping, and high definition video on 4x4 displays, and provides a sustainable approach to address growing DMS concerns with the current PDG. Both programs require the addition of an Ethernet based High Speed Data Network (HSDN) that facilitates future increments of combat capability with higher data bandwidth rates for system compatibility and interoperability. This program is a critical element to a modernized F-16 technology digital backbone and necessary to modernize the F-16 beyond its current computing capability. Additionally this effort enables the F-16 to effectively communicate with advanced platforms to improve battlefield situational awareness. Without it, all current and future F-16 modernization efforts cannot be supported. <b>FY 2024 Plans:</b> MMC will complete cybersecurity protection implementation, code rehost support for AESA radar candidates, software testing and code validation for the post-rehost supportable software. PDG will complete software testing and code validation for the post-rehost supportable software. <b>FY 2025 Plans:</b> F-16 Modular Mission Computer (MMC) / Programmable Display Generator (PDG) Upgrade development efforts complete. <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Conclude development activities.		1.246	0.986	0.000
<b>Title:</b> Simulator Trainers Program (STP) <b>Description:</b> F-16 STP supports the development, acquisition, fielding, and integration of F-16 Simulators. It enables the USAF to exercise and train using the latest F-16 capabilities available to multiple aircraft configurations, while reducing the overall cost of maintenance and aircrew training. In order to maintain concurrency with the aircraft OFP, this funding supports development, test, and integration of simulator upgrades. Funds may be used to address emerging and short notice Diminishing Manufacturing		13.844	0.100	0.000

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
Sources and Material Shortage (DMSMS) issues. This program element implements requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative and may include necessary civilian pay expenses required to manage, execute, and deliver F-16 weapon system simulator capabilities.				
<b>FY 2024 Plans:</b> Complete M7.5 concurrency development.				
<b>FY 2025 Plans:</b> N/A				
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Conclude funded development activities.				
<b>Title:</b> AIFF Mode 5		29.517	0.100	0.000
<b>Description:</b> AIFF/Mode 5 provides hardware and software/firmware updates required to comply with DoD mandates for Advanced Identify Friend or Foe (AIFF) Mode 5. AIFF provides positive identification for Air Traffic Control reporting, combat targeting, and fratricide prevention. This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys, or bridge buys limited to the program of record quantity. This also supports flight testing and technical data updates, as required.				
<b>FY 2024 Plans:</b> Complete development efforts for Operation Ground and Flight Testing, ECOs, and AIMS certification.				
<b>FY 2025 Plans:</b> F-16 AIFF Mode 5 development efforts complete.				
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Conclude development activities.				
<b>Title:</b> AESA Radar		28.947	0.100	0.000
<b>Description:</b> The AESA Program provides an upgrade from the current, mechanically scanned APG-68 system to an APG-83 electronically scanned AESA radar that offers advanced targeting and electronic protection capabilities as well as improved reliability and maintainability. Ongoing radar Operational Flight Program (OFF) development includes the full Phase III capability development document (CDD) implementation. AESA Phase 3.3 radar software capabilities include additional Maritime detection, combat identification and track; additional classified A-A and A-G Combat Identification; and Enhanced missile Data Link capabilities from the RMP CDD.				

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p><b>FY 2024 Plans:</b> Completion of AESA Phase 3.3 radar development.</p> <p><b>FY 2025 Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Conclude funded development activities.</p>				
<p><b>Title:</b> Comm Suite Radio Upgrade Aircraft</p> <p><b>Description:</b> Provides mandatory CJCS updates to the ARC-210 satellite communication (SATCOM) radios on F-16 aircraft including Second Generation Anti-Jam Tactical radio for NATO (SATURN) with Mobile User Objective System (MUOS) and improved crypto capability with the addition of a Cockpit Communication Control Panel (C3PO), and Digital Comm Matrix (DCM).</p> <p><b>FY 2024 Plans:</b> F-16 Comm Suite Radio Upgrade Aircraft development efforts complete.</p> <p><b>FY 2025 Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> N/A</p>		0.532	0.000	0.000
<p><b>Title:</b> Integrated Viper Electronic Warfare Suite (IVEWS)</p> <p><b>Description:</b> Integrated Viper Electronic Warfare System (IVEWS) previously justified as a sub-program under DRWR Cost Category as NGEW has been renamed and separated to an IVEWS Cost Category to continue development efforts. IVEWS is a Section 804 Middle Tier Acquisition program providing improved Digital Radar Warning Receiver performance and Active Jamming capability, with future growth upgrades, in an internal suite. This rapid acquisition program was initiated to design, develop, test, and produce a mature electronic warfare system that is internal to the F-16, interoperable with the Active Electronically Scanned Array radar, designed to Open Missions Systems Tier II requirements, and provisioned for long-term growth capability to support future upgrades such as Fiber Optic Towed Decoy, and Adaptive Processing.</p> <p><b>FY 2024 Plans:</b> Conclude Minimum Viable Product (MVP) development and assessment activities towards Operational Assessment (OA).</p> <p><b>FY 2025 Plans:</b></p>		71.613	0.100	0.000

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
N/A				
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Conclude funded development activities.				
<b>Title:</b> Multifunctional Information Distribution System Joint Tactical Radio System (MIDS-JTRS)		0.000	0.100	0.000
<b>Description:</b> Multifunctional Information Distribution System Joint Tactical Radio System (MIDS-JTRS) provides real time, jam-resistant and secure information system for the transfer of combat data, voice, and navigation information between widely dispersed battle elements. MIDS-JTRS's enhanced capabilities provide concurrent multi-netting which enables Link 16 by adding capability to receive four messages in a single time slot and allows for greater network design flexibility along with concurrent receive capabilities and J-voice. The F-16 MIDS-JTRS effort is developing Ethernet connectivity within the terminal.				
<b>FY 2024 Plans:</b> Complete IB8.2.1.1 lab integration testing and conclude RDT&E efforts for the program.				
<b>FY 2025 Plans:</b> N/A				
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Conclude development activities.				
<b>Title:</b> M Code		0.050	5.949	0.000
<b>Description:</b> The current aircraft Embedded GPS/INS (EGI) system suffers from Diminishing Manufacturing Sources (DMS) shortfalls. New security requirements and mandated M-code hardware support drive the need for a new EGI solution to support modern resilient weaponry and mission systems.				
<b>FY 2024 Plans:</b> Development activities for design, integration, and delivery of test assets for SIL events.				
<b>FY 2025 Plans:</b> N/A				
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Funding reduced in FY 2025 due to delays in pre-requisite M-Code development efforts. (F-16 GPS M-Code / R-EGI funding provides for the capability's integration on the F-16 platform.)				
<b>Accomplishments/Planned Programs Subtotals</b>		241.482	98.633	106.952

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

Line Item	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
• APAF 05 Line Item F01600: <i>F-16 Aircraft Modifications</i>	724.944	297.342	217.235	-	217.235	528.942	530.110	364.998	326.756	0.000	2,990.327
• APAF 07 F01600: <i>F-16</i>	0.000	0.000	11.501	-	11.501	12.000	8.765	5.575	5.575	0.000	43.416
• APAF 07 Line Item F0160P: <i>F-16 Post Production Support</i>	4.704	1.075	867.000	-	867.000	6.472	9.447	0.000	0.000	0.000	888.698
• APAF 06 Line Item <i>F01600: F-16 Initial Spares</i>	20.482	8.271	8.356	-	8.356	1.078	0.000	7.896	8.051	0.000	54.134

**Remarks**

**E. Acquisition Strategy**

OFP SW development effort is completely developed organically at Hill AFB (309th SWEG). Numerous Integration contracts (CPFF, FFP) are required to allow for Improved Avionics, Weapon, AIFF Mode 5, MIDS-JTRS integration to successfully field with each OFP.

Integrated Test requires both organic test range support and contract support for modification integration testing of F-16 programs and subsystems.

MMC provides the necessary architecture upgrades for the modernization of the F-16 post-block fleet. Raytheon is the Prime with Cost Plus Fixed Fee contract for development, and a Firm Fixed Priced contract for Production.

PDG will provide a platform for video enhancements, add Ethernet connectivity, increase high-speed data, memory, and throughput, and support OFP growth through the remaining service life of the F-16. General Dynamics is the Prime with Cost Plus Fixed Fee contract for development, and a Firm Fixed Priced contract for Production.

AIFF Mode 5 program uses numerous contracts for DMS resolution, integration, production, support, and installs. Funding will be awarded on the following contracts: Harness IDIQ, Bracket IDIQ, Lockheed Martin Falcon Enterprise, and BAE Mode 5 IDIQ.

The Active Electronically Scanned Array (AESA) Joint Emergent Operational Need (JEON) contract for development and production of the APG-83 radar awarded to Northrop Grumman on 31 May 2017. The US Government is the prime integrator and a separate contract is established for Lockheed Martin to provide integration support. AESA JEON completed Mar 22. Remaining RDT&E effort is to fulfill radar software capabilities from the RMP CDD.

MIDS-JTRS terminal firmware updates will be tested at Hill AFB by the 309 SWEG OFP SW development team to ensure compatibility between the two software baselines.

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**Appropriation/Budget Activity**  
3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*

**R-1 Program Element (Number/Name)**  
PE 0207133F / *F-16 Squadrons*

The EMD HW/Advanced capability improvements uses various contract types (Cost Plus and Fixed Price).

IVEWS is Section 804 Middle Tier Acquisition prototyping Other Transaction Authority (OTA) contract was awarded on 25 September 2019. The IVEWS program is being developed by Northrop Grumman (Rolling Meadows, IL). The Electronic Warfare Radar Frequency Compatibility (EWRFC) awarded on Mar 9, 2022, extends development beyond the OTA with a period of performance end date of Mar 30, 2025. EWRFC provides continued rapid prototyping efforts and procurement of Engineering Manufacturing and Design (EMD) hardware used in flight test aircraft.

M-Code is managed by AFLCMC/WNY. The development is contracted to Integrated Solutions for Systems (IS4S).

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

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207133F / F-16 Squadrons	<b>Project (Number/Name)</b> 672671 / F-16 Squadrons
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<b>Product Development (\$ in Millions)</b>				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			
OFP Updates on F-16 aircraft	Various	309th SMG : Hill AFB, UT	-	59.016	Oct 2022	62.107	Oct 2023	80.673	Oct 2024	-		80.673	Continuing	Continuing	-
MMC Upgrade / Display Generator Upgrade	Various	Various : Various	-	1.246	Nov 2022	0.986	Feb 2024	-		-		-	0.000	2.232	-
Simulator Trainers	Various	Various : Various	-	13.844	Oct 2022	0.100	Mar 2024	-		-		-	0.000	13.944	-
AIFF Mode 5	Various	Various : Various	-	29.517	Nov 2022	0.100	Apr 2024	-		-		-	0.000	29.617	-
AESA Radars	Various	Various : Various	-	28.947	Jun 2023	0.100	Mar 2024	-		-		-	0.000	29.047	-
Comm Suite Radio Upgrade	Various	Various : Various	-	0.532	Jul 2023	-		-		-		-	0.000	0.532	-
MIDS JTRS	Various	Various : Various	-	-		0.100	Apr 2024	-		-		-	0.000	0.100	-
EMD HW/Advanced Capabilities Improvements	Various	Various : Various	-	4.817	Jul 2024	-		-		-		-	0.000	4.817	-
IVEWS	Various	Various : Various	-	71.613	Mar 2023	0.100	Mar 2024	-		-		-	0.000	71.713	-
M-Code	Various	Various : Various	-	0.050	Mar 2024	5.949	Jun 2024	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	209.582		69.542		80.673		-		80.673	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				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			
Direct Cite Authority	Reqn	Various : Various	-	7.070	Oct 2022	7.686	Oct 2023	7.917	Oct 2024	-		7.917	Continuing	Continuing	-
<b>Subtotal</b>			-	7.070		7.686		7.917		-		7.917	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				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			
Integrated Tests	Various	Various : Various	-	15.964	Jan 2023	11.997	Jan 2024	8.037	Jan 2025	-		8.037	0.000	35.998	-
<b>Subtotal</b>			-	15.964		11.997		8.037		-		8.037	0.000	35.998	N/A



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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207133F / <i>F-16 Squadrons</i>	<b>Project (Number/Name)</b> 672671 / <i>F-16 Squadrons</i>
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FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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>F-16 Development Efforts</b>																											
AESA Radar OFP Capability Development																												
OFP Inc 1 & 2 M7.4/M8.0.4 OFP Fielding																												
OFP Inc 2 M8.1 OFP Fielding																												
OFP Inc 2 M8.2 OFP Fielding																												
OFP Inc 3 Fielding																												
AIFF Mode 5 Flight Test																												
IVEWS Flight Test Start																												
IVEWS Fielding Recommendation																												
OFP Inc 1 SCU 12 DT/OT																												
OFP Inc 1 SCU 12 OFP Fielding (Inc 2)																												

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2025 Air Force **Date:** March 2024

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207133F / <i>F-16 Squadrons</i>	<b>Project (Number/Name)</b> 672671 / <i>F-16 Squadrons</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>F-16 Development Efforts</i></b>				
AESA Radar OFP Capability Development	1	2023	4	2024
OFP Inc 1 & 2 M7.4/M8.0.4 OFP Fielding	1	2023	3	2024
OFP Inc 2 M8.1 OFP Fielding	1	2023	1	2027
OFP Inc 2 M8.2 OFP Fielding	1	2027	1	2028
OFP Inc 3 Fielding	1	2028	4	2029
AIFF Mode 5 Flight Test	1	2025	3	2025
IVEWS Flight Test Start	1	2023	3	2024
IVEWS Fielding Recommendation	4	2024	4	2024
OFP Inc 1 SCU 12 DT/OT	1	2023	2	2024
OFP Inc 1 SCU 12 OFP Fielding (Inc 2)	1	2024	2	2024