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Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Air Force **Date:** May 2021

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 0207133F / <i>F-16 Squadrons</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	-	179.655	202.498	224.573	0.000	224.573	-	-	-	-	-	-
672671: <i>F-16 Squadrons</i>	-	179.655	202.498	224.573	0.000	224.573	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Note
This program, BA 7, PE 0207133F, project 672671, M Code, is a new start.

A. Mission Description and Budget Item Justification

The F-16 Fighting Falcon is the world's premier fixed-wing, high performance, single engine multi-mission fighter aircraft that comprises 45% of the AF fighter inventory. Operational since 1980, the F-16 has proven itself in combat in 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). The F-16 remains the USAF's primary SEAD/DEAD platform. The aircraft has evolved its capabilities by capitalizing upon advancements made in computers, avionics systems, engines, and structures technologies to meet emerging warfighter requirements and combat current and evolving enemy threats. These computer processing and avionics upgrades are critical to building a modernized architecture that promotes current open, agile, and digital concepts to enable future technological growth of the F-16's capabilities well into the 2040s. Furthermore, the F-16 provides the capacity called for in the NDS (National Defense Strategy) by supplying the USAF the highest readiness rates at the lowest operating costs of any US fighter. The F-16 programs listed below support the NDS's call to strengthen alliances by being the DoD's largest Foreign Military Sales (FMS) program servicing over 26 countries and growing. The funding described in this document directly maps to the NDS as it provides upgrades to the F-16 platform to enable the delivery of joint lethality in contested environments throughout the coming decades. The specific modification programs listed below directly contribute to accomplishing the mission objectives as described in the NDS.

Modification programs include: Operational Flight Program (OFP) software (SW) development required to integrate new precision weapons, advanced targeting pods, improved avionics, and other hardware (HW) mods to meet the Home Land Defense (HLD) Mission, DoD mandates, and maintain updates on the respective F-16 training simulators, and other hardware subsystems; Engineering Manufacturing and Design (EMD) Hardware/Advanced capability improvements require funding to develop, test, and qualify, weapon systems, aircraft subsystems replaced or modified due to requirements changes, pre-planned product improvements (P3I), Diminishing Manufacturing Sources (DMS) and parts obsolescence; Modular Mission Computer (MMC) Upgrade/Display Generator Upgrade resolves shortfalls in mission computer memory and throughput brought on by the addition of incremental combat capability addresses cyber-security and includes Non-Recurring Engineering (NRE), design, development, integration, and ground/ flight test for fielding; F-16 Training Simulator updates enable the USAF to exercise/train using the most current F-16 OFP available to all block configurations, to include both aircrew and maintenance trainers; Joint Air-to-Surface Standoff Missile-Extended Range (JASSM-ER) on F-16 aircraft, and includes NRE, test assets, SEEK EAGLE, integration, and flight test; Comm Suite Radio Upgrade (CSU) improved satellite communication (SATCOM) radio upgrade with Mobile User Objective System (MUOS) capability to meet next-gen tactical narrow band SATCOM with better crypto capabilities; an Active Electronically Scanned Array (AESA) Radar capable on all blocks that offers enhanced lethality, advanced electronic protection capabilities, as well as, improved reliability and maintainability on F-16 aircraft; Multi-functional Information Distribution System-Joint Tactical Radio System (MIDS-JTRS) provides

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a real-time, jam resistant and secure information system for the transfer of combat data, voice and navigation information between widely dispersed battle elements; Hybrid Flight Control Computer (HFLCC) Auto Ground Collision Avoidance System (AGCAS) development and integration prevents most controlled flight into terrain (CFIT) accidents using terrain database and prediction algorithms for aircraft trajectory recovery and executes an automated fly-up maneuver to avoid collision; Advanced Identification Friend or Foe (AIFF-Mode5) on F-16 aircraft provides improved airspeed and location info to ground stations and other aircraft in the vicinity; Digital Radar Warning Receiver (DRWR) improves existing radar warning receiver performance and Electronic Warfare (EW) threat detection range, azimuth, detection time, and allows reduction of radio frequency compatibility (RFC) issues with other on board transmitters. M Code improves existing Embedded GPS/INS (EGI), providing an upgradeable, resilient, and reliable Positioning Navigation and Timing (PNT) system.

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 0605831F. In FY20 \$1.375M was expended for civilian pay expenses in this program element, and in FY21 \$2.490M is forecasted 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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	193.013	223.437	229.066	0.000	229.066
Current President's Budget	179.655	202.498	224.573	0.000	224.573
Total Adjustments	-13.358	-20.939	-4.493	0.000	-4.493
• Congressional General Reductions	0.000	-0.370			
• Congressional Directed Reductions	0.000	-30.437			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	9.868			
• Reprogrammings	-9.755	0.000			
• SBIR/STTR Transfer	-3.603	0.000			
• Other Adjustments	0.000	0.000	-4.493	0.000	-4.493

Change Summary Explanation

FY20 Reprogrammings: -9.755M reprogrammings to F-22(-6.500M), UPAD(-0.005M), and FY20 OMNIBUS (-3.250M)

FY20 SBIR/STTR Transfer: -3.603M SBIR

FY21 Congressional Directed Reductions: -30.437M reduction - DRWR forward financed (-22M), AESA JEON PY carryover (-8.437M)

FY21 Congressional Directed Transfer: +9.868M transfer from procurement for AIFF Mode 5

FY22 Other Adjustments: -4.493M reduction for rate adjustments

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
<p>Title: OFP Updates on all F-16 aircraft (Increment 1)</p> <p>Description: OFP versions are updated continually to integrate new weapons, targeting pods, and improved avionics. Increment 1 OFP is comprised of four separate OFPs (2 x pre-block called "SCU" and 2 x post-block called "M-Series").</p> <p>M-Series and Software Capability Upgrade (SCU) programs enable the design and coding of software via an agile incremental cadence of 1-2 years and address efforts required to maintain current code, integrate new precision weapons, advanced targeting pods, and improved avionics to meet DoD mandates in order to modernize the F-16's architecture. OFP increments are the key development and fielding mechanism that enables the F-16's ability to meet its NDS requirements to operate in contested environments and defend the homeland. Systems Integration Labs (SIL) 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. F-16 OFPs are developed 100% organically by the 309th Software Engineering Group (SWEG) at Hill AFB, UT.</p> <p>The OFP effort also contains Program Management Administration (PMA) support activities to include travel, office supplies, training courses, Video Teleconferencing (VTC) and support contractors.</p> <p>FY 2021 Plans: Develop and Field Increment 1 capability while maintaining and upgrading portions of the SIL.</p> <p>FY 2022 Plans: Develop and Field Increment 1 capability while maintaining and upgrading portions of the SIL. Plan and develop requirements for Increment 2 (planned FY23 start).</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Decrease based on program phasing.</p>		64.500	85.852	72.484
<p>Title: Flight Test</p> <p>Description: The F-16's test fleet of 41 aircraft encompass Developmental Test and Evaluation (DT&E) at Edwards AFB, combined Development Test/Operational Test (DT/OT) at Eglin AFB, and Nellis AFB, and the Air National Guard Air Force Reserve Test Center (AATC). This program accounts for the modification of test aircraft and the scheduling of flight test sorties to include integration tests of associated subsystems and weapons, OFPs, weapons integration, Radio Frequency compatibility (RFC), and avionic sub-systems to ensure capabilities meet user fielding schedules.</p> <p>FY 2021 Plans:</p>		13.235	15.925	17.767

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
<p>Increase support of DT&E infrastructure to account for growing test requirements from new modification programs. Modification of initial DT/OT test aircraft with new hardware to support Increment 1 OFPs for FY2022 DT/OT testing. Initiate combined DT/OT flight test with pre-increment 1 (M7.2+) hardware (mission computer, AESA, MIDS-JTRS) and increment 1 software candidates which includes advanced AESA radar, SATCOM, RF compatibility upgrades and out-of-cycle regression testing.</p> <p>FY 2022 Plans: Increase support of DT&E infrastructure to account for growing test requirements from new modification programs. Modification of additional DT/OT test aircraft with new hardware to support Increment 1 OFPs for FY2023 DT/OT testing. Initiate combined DT/OT flight test supporting the upgraded MMC and display generator hardware programs along with new communication suite improvements, and support out-of-cycle regression testing.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Increase due to cost estimate/inflation.</p>				
<p>Title: EMD HW/Advanced Capabilities Improvements</p> <p>Description: Advanced Capability Improvements include, but 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 analysis and studies analysis, lab and/or on-aircraft evaluation of potential subsystem changes / capability improvements.</p> <p>FY 2021 Plans: Continue support to develop, test, and qualify aircraft weapons systems including F-16 subsystems replaced or modified due to requirements changes, security updates, and parts obsolescence. Radio Frequency Compatibility (RFC) / sensor integration development efforts to minimize and understand the EMI on the F-16.</p> <p>FY 2022 Plans: Continue support to develop, test, and qualify aircraft weapons systems including F-16 subsystems replaced or modified due to requirements changes, security updates, and parts obsolescence. Radio Frequency Compatibility (RFC) / sensor integration development efforts to minimize and understand the EMI on the F-16.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Steady-state requirement.</p>		0.008	0.200	0.200
<p>Title: MMC Upgrade / Programmable Display Generator (PDG) Upgrade on F-16 aircraft</p> <p>Description: The MMC upgrade on the F-16 post-block aircraft, (Blk 40, 42, 50, 52) resolves shortfalls in mission computer memory and throughput. 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</p>		17.116	7.046	2.891

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
<p>Hands On Throttle and Stick (HOTAS) integration with Sensor of Interest (SOI), format swapping and high definition video on 4x4 displays; provides improved display formats during dynamic maneuvers; resolves symbol freezing issues due to throughput constraints; and provides a sustainable approach to address growing DMS concerns with the current PDG. Both programs require the addition of an Ethernet 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 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 and to precisely employ and conduct air and ground operations while maintaining the highest level of survivability, without it, all current and future F-16 modernization efforts cannot be supported. Both the MMC and PDG directly map to the NDS as critical enabling technologies required for the F-16 to operate in contested environments and defend the homeland.</p> <p>FY 2021 Plans: Continue development activities for HSDN, MMC Upgrade and PDG Upgrade for design, development, integration, deliver test assets for SIL and flight test for fielding with Increment 1 OFPs.</p> <p>FY 2022 Plans: Continue development activities for HSDN, MMC Upgrade and PDG Upgrade for design, development, integration, deliver test assets for SIL and flight test for fielding with Increment 1 OFPs.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Decrease based on phasing of requirements.</p>				
<p>Title: Simulator Trainers Program</p> <p>Description: F-16 Simulator Training Programs (Simulators) supports the development, acquisition, fielding and integration of F-16 Simulators. 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 support development, test and integration of simulator upgrades. Funds may be used to address emerging and short notice Diminishing Manufacturing and Material Shortage (DMSMS) issues. DMS efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. This program element may include necessary civilian pay expenses required to manage, execute, and deliver F-16 weapon system capability.</p> <p>FY 2021 Plans:</p>		15.420	4.469	15.777

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
<p>Continue contract efforts for managing and maintaining F-16 simulator trainers, to include tech order development. This funding also supports development test, and integration of simulator upgrades to include new aircraft OFPs. Supporting development efforts for the F-16 STP trainers.</p> <p>FY 2022 Plans: Continue contract efforts for managing and maintaining F-16 simulator trainers, to include tech order development. This funding also supports development test, and integration of simulator upgrades to include new aircraft OFPs. Supporting development efforts for the F-16 STP trainers.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Increase due to cost estimate/phasing of program requirements.</p>				
<p>Title: AIFF Mode 5</p> <p>Description: Modify Pre-Block F-16's with Advanced Identification Friend or Foe (AIFF) to comply with DOD Mode 5 mandate. AIFF system provides positive identification for Air Traffic Control reporting, combat targeting, and fratricide prevention.</p> <p>FY 2021 Plans: Continue APX-12X development and integration activities for Phase II Preliminary Design Review. Purchase of the VDATS Testers to meet APX-12X developmental needs of the USG.</p> <p>FY 2022 Plans: N/A</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Program restructured to complete development of next generation APX-12X. Internal realignment for development efforts in FY20, transferred FY21 3010 funds to 3600 based on early to need 3010.</p>		4.322	9.868	0.000
<p>Title: AESA Radar</p> <p>Description: This is a continuation of the Active Electronically Scanned Array (AESA) Radar congressional add funding line in FY16 and FY17. The AESA Program provides an upgrade from the current APG-68 system to an AESA radar that offers advanced electronic protection capabilities as well as improved reliability and maintainability to support the Aerospace Control Alert (ACA) mission for Homeland Defense (HLD) and includes the Phase III development for full capability development document (CDD) implementation, as well as Radio Frequency (RF) compatibility with other systems. This program directly maps to the NDS as it provides the most critical upgrade to the F-16's ability to successfully defend the homeland against attack.</p> <p>FY 2021 Plans:</p>		46.258	30.405	41.962

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
Conclude Phase II JEON testing and fielding support with increment 1 OFP development; continue Phase III development efforts for full CDD (advanced radar capabilities). FY 2022 Plans: Continue Phase III development and test efforts for full CDD radar capabilities. Support initial fielding of Phase III radars. FY 2021 to FY 2022 Increase/Decrease Statement: Increase due to cost estimate/phasing of program requirements.				
Title: Comm Suite Radio Upgrade Aircraft Description: 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). FY 2021 Plans: Continue development efforts for all aircraft configurations and procure Group B assets to facilitate installations in FY22. FY 2022 Plans: N/A FY 2021 to FY 2022 Increase/Decrease Statement: Decrease due to transition to production.		3.899	0.607	0.000
Title: Digital Radar Warning Receiver Description: The F-16 Digital Radar Warning Receiver (DRWR) program replaces an existing analog radar warning receiver and improves Electronic Warfare (EW) threat protection. This program is pursuing a dual solution approach integrating a currently available ALR-69A for the Air National Guard and Reserve fleets while developing an advanced Next-Generation Electronic Warfare (NGEW) Suite for the Active Duty fleet. Installation of these DRWRs will improve threat detection fidelity resulting in increased F-16 aircraft survivability and integration with future F-16 modifications (e.g. Active Electronically Scanned Array (AESA)). The NGEW Suite is a competitive prototyping program evaluating future options (e.g. electronic countermeasures via an internal jammer and capability for future growth upgrades) to meet the DRWR program requirements while mitigating current DRWR performance issues. Both programs are necessary for the F-16 to meet the National Defense Strategy requirement of operating in current as well as future contested environments. The DRWR program also facilitates Sensor Integration Unit (SIU), also known as Radio Frequency Compatibility (RFC), with associated systems. FY 2021 Plans:		12.897	48.126	63.222

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
<p>Continue development efforts to complete remaining Group A (Block 40/42, 50/52) designs and finalize Group B Hardware. DRWR Software and associated OFPs to be released upon successful Force Development Evaluation (FDE). Blk 30/32C and Blk 50/52C Kit-proofs. Receive Milestone C approval. NGEW Suite will have prototype hardware available to complete a Chamber test and demonstrate capabilities to support continued prototyping or transition to fielding.</p> <p>FY 2022 Plans: Continue development efforts to complete remaining Group A designs. Update/Finalize Blk 30/32C, 40C, 42C & 50/52C baseline configurations (Engineering & Technical Orders/Time Compliance Technical Orders). Blk 40C, 42C & 50/52C Kit-proofs. NGEW Suite efforts includes Non-Recurring Engineering (NRE) activities, design, integration, demonstrations, and System Integration Lab (SIL) and Developmental and Operational (DT/OT) testing.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Increase based on phasing of requirements.</p>				
<p>Title: Multifunctional Information Distribution System Joint Tactical Radio System (MIDS-JTRS)</p> <p>Description: 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 enhances situational awareness by exchanging digital data over a common communication link that is continuously and automatically updated in real time. Additionally 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 contention receive capabilities and J-voice. The F-16 MIDS-JTRS effort is developing Ethernet connectivity within the terminal. This program maps to the NDS by providing crypto modernization for tactical networks and more secure command and control, which enable increased interoperable communications across the joint force. This critical communications capability generates a more lethal force to defeat enemies and achieve sustainable outcomes that protect the American people and vital US interests.</p> <p>FY 2021 Plans: N/A</p> <p>FY 2022 Plans: N/A</p>		2.000	0.000	0.000
<p>Title: M Code</p> <p>Description: Modify all F-16 USAF with PNT and M Code capabilities. The current aircraft Embedded GPS/INS (EGI) system suffers from Diminishing Manufacturing Sources (DMS) shortfalls. New security requirements and mandated hardware support of</p>		-	0.000	10.270

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2020	FY 2021	FY 2022
items such as the M Code compliance on aircraft drive the need for a new EGI solution to enable F-16 to support modern resilient weaponry and mission systems.			
FY 2021 Plans: N/A			
FY 2022 Plans: Development activities for design, integration, deliver test assets for SIL and flight test.			
FY 2021 to FY 2022 Increase/Decrease Statement: New Start/Increase based on cost estimate.			
Accomplishments/Planned Programs Subtotals	179.655	202.498	224.573

D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 05 Line Item F01600: <i>F-16 Aircraft Modifications</i>	252.109	622.593	613.166	-	613.166	-	-	-	-	-	-
• APAF 07 Line Item F0160P: <i>F-16 Post Production Support</i>	11.402	14.163	10.456	-	10.456	-	-	-	-	-	-
• APAF 06 Line Item <i>F01600: F-16 Initial Spares</i>	30.463	21.486	40.980	-	40.980	-	-	-	-	-	-

Remarks

E. Acquisition Strategy

The F-16 Program acquisition strategy is to improve capability, maintenance and safety mods through OFP development/flight test, enhanced weapons integration, structural upgrades, and simulator concurrency.

F-16 OFP SW updates will continually bring new capabilities to the warfighter. OFP SW development effort is now completely developed at Hill AFB (309 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.

The upgraded MMC is a critical foundational component that will be the processing workhorse for the post-block fleet, bringing modern networking capability via Ethernet, and providing the necessary architecture upgrades for the modernization of the F-16 post-block fleet. The PDG Upgrade 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.

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<p>The EMD HW/Advanced capability improvements will develop, test, and qualify aircraft weapons systems, including subsystems and uses various contract types (Cost Plus and Fixed Price).</p> <p>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.</p> <p>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, Falcon 2020, Mode 5 IDIQ, and SASSM/EGI IDIQ.</p> <p>Automatic Ground Collision Avoidance System (AGCAS) development will accomplish test and evaluation of the AGCAS system on F-16 Block 25/30/32 aircraft. Contracts with LM, flight test, and engineering contractor were awarded in 2018.</p> <p>DRWR is organically being integrated on the F-16 by F-16 System Program Office (AFLCMC/WWM) and the Electronic Warfare and Avionics (EW&A) System Program Office (AFLCMC/ WNY) at Robins AFB, GA. The ALR-69A production contract (managed by AFLCMC/WNY) was awarded on 30 March 2018 to Raytheon, Goleta, CA (CAGE CD 06129). As part of the DRWR dual solution approach, the NGEW Suite prototyping Other Transaction Authority (OTA) contract was awarded on 25 September 2019.</p> <p>The ALR-69A software is organically managed by AFLCMC/WNY utilizing the 579 SWES (Software Maintenance) team and the OEM Raytheon, Goleta, CA. The ALR-69A hardware is sustained by the 408 SCMS (Supply Chain) and 402 AMXG (Hardware Maintenance) at Robins AFB, GA.</p> <p>Flight Test requires both organic test range support and various contract support for integration test of F-16 subsystems to ensure capabilities meet CAF fielding schedule, which includes Radio Frequency Compatibility (RFC).</p> <p>M Code is managed by AFLCMC/WNY the development is contracted to Integrated Solutions for Systems (IS4S). Contracts will be award to Harness IDIQ, Bracket IDIQ, Falcon 2020, and SAASM/EGI IDIQ.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Air Force **Date:** May 2021

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Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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			
Product Development	C/CPAF	Not specified. : TBD	-	0.000		-		-		-		-	-	-	-
OFP Updates on F-16 aircraft	Various	309th SMG : Hill AFB, UT	-	51.604	Oct 2019	75.040	Oct 2020	62.302	Oct 2021	-		62.302	-	-	-
MMC Upgrade / Display Generator Upgrade	Various	Various : Various	-	17.116	Nov 2019	7.046	Nov 2020	2.891	Nov 2021	-		2.891	-	-	-
EMD HW / Advanced Capabilities	Various	Various : Various	-	0.008	Aug 2020	0.200	Aug 2021	0.200	Aug 2022	-		0.200	-	-	-
Simulator Trainers	Various	Various : Various	-	15.420	Nov 2019	4.469	Nov 2020	15.777	Nov 2021	-		15.777	-	-	-
AIFF Mode 5	Various	Various : Various	-	4.322	Nov 2019	9.868	Aug 2021	-		-		-	-	-	-
AESA Radars	Various	Various : Various	-	46.258	Nov 2019	30.405	Nov 2020	41.962	Nov 2021	-		41.962	-	-	-
Digital Radar Warning Receiver	Various	Various : Various	-	12.897	Mar 2020	48.126	Mar 2021	63.222	Mar 2022	-		63.222	-	-	-
Comm Suite Radio Upgrade	Various	Various : Various	-	3.899	Jan 2020	0.607	Jan 2021	-		-		-	-	-	-
MIDS JTRS	Various	Various : Various	-	2.000	Nov 2019	-		-		-		-	-	-	-
M Code	Various	Various : Various	-	-		-		10.270	Jan 2022	-		10.270	-	-	-
Subtotal			-	153.524		175.761		196.624		-		196.624	-	-	N/A

Test and Evaluation (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	-	0.000		-		-		-		-	-	-	-
Flight Tests	Various	Various : Various	-	13.235	Jan 2020	15.925	Jan 2021	17.767	Jan 2022	-		17.767	-	-	-
Subtotal			-	13.235		15.925		17.767		-		17.767	-	-	N/A

Management Services (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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			
Management Services	C/CPAF	Not specified. : TBD	-	0.000		-		-		-		-	-	-	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2022 Air Force **Date: May 2021**

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207133F / <i>F-16 Squadrons</i>	Project (Number/Name) 672671 / <i>F-16 Squadrons</i>
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FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
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

	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
<i>F-16 Development Efforts</i>																												
MMC Upgrade Trial Vehicle Install C Model			■																									
M7.2 OFP Field	■																											
Communication Suite Upgrade Pre-block Fielding																												
AESA JEON Initial Fielding																												
Digital Radar Warning Receiver Flt Test Complete			■																									
SCU 11 OFP Fielding																												
Digital Radar Warning Receiver Fielding Recommendation																												
M7.3/8.03 OFP Fielding																												
M8.1 OFP Fielding																												
M8.2 OFP Fielding																												
M Code Fielding																												
M Code TVI Milestone																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Air Force **Date:** May 2021

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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>F-16 Development Efforts</i>				
MMC Upgrade Trial Vehicle Install C Model	3	2020	3	2020
M7.2 OFP Field	1	2020	1	2020
Communication Suite Upgrade Pre-block Fielding	1	2022	4	2025
AESA JEON Initial Fielding	1	2020	4	2026
Digital Radar Warning Receiver Flt Test Complete	3	2020	1	2021
SCU 11 OFP Fielding	1	2020	2	2023
Digital Radar Warning Receiver Fielding Recommendation	2	2022	2	2022
M7.3/8.03 OFP Fielding	1	2020	4	2021
M8.1 OFP Fielding	1	2020	4	2024
M8.2 OFP Fielding	1	2024	3	2026
M Code Fielding	4	2024	4	2026
M Code TVI Milestone	1	2023	1	2023