

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force	<b>DATE:</b> February 2012
--	----------------------------

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0207133F: <i>F-16 SQUADRONS</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	125.417	131.069	190.257	-	190.257	248.567	221.793	167.486	119.608	Continuing	Continuing
672671: <i>F-16 Squadrons</i>	125.417	131.069	190.257	-	190.257	248.567	221.793	167.486	119.608	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**Note**

Note: FY12 PB reflected Blk 40-52 Service Life Extension Program (SLEP) as a combined structures and avionics program with funding starting in FY12. The FY13 Budget separates SLEP combined efforts into (1) Legacy SLEP for structures upgrades and (2) Combat Avionics Programmed Extension Suite (CAPES) for avionics modernization upgrades.

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

The F-16 Fighting Falcon is the world's premier multi-mission fighter. It is a fixed-wing, high performance, single-engine fighter aircraft. In its 33-year history, 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). Also during these years the aircraft has evolved in its capabilities to exploit the advances made in computer, avionics systems, engine, and structures technologies. The F-16 has been selected by more than 20 air forces around the world and foreign military sales production continues in the 21st century. ASC/WWM (The F-16 System Program Office) develops, integrates, and qualifies systems to enhance the overall performance of the F-16 mission. Enhancements which are being or will be developed during the Five Year Defense Plan (FYDP) include:

a. Operational Flight Program (OFP) Development: Blk 40-52 OFP (M-tapes) are updated continually to integrate new precision weapons, advanced targeting pods, improved avionics and other hardware (HW) Group B subsystems. Major tapes (e.g., M6/6+) are released every three years and a minor tape (e.g., M6.2+) is released 1 year after each major tape. The European Participating Air Forces (EPAF) countries participate in the development of M-tapes and share the cost of developing common capabilities and totally fund development of their unique capabilities. Generally, three major or minor tapes are under development/testing at any one time. Extensive ground and flight testing is required to field each M-tape. Advanced weapons integration includes joint air-to-surface stand-off Missile (JASSM) and joint direct attack munitions (JDAM, Laser JDAM), small diameter bomb (SDB and SDB II), advanced medium range air-to-air missile (AMRAAM), AIM-9X, AIM-9X Block II, and updates to existing weapons. Weapons integration also includes tasks such as performing risk reduction activities on advanced weapon integration, developing and integrating advanced racks, pylons, adapters, and the universal armament interface (UAI), and ensuring nuclear surety, safety and compatibility. ALR-56M software updates allow for incorporation of latest updates for changing threat environment reducing war fighter vulnerabilities. Link 16 provides the F-16s with a secure, jam resistant, high-capacity data communications link with other combat aircraft, airborne control aircraft, and ground control centers. Major new capabilities currently being integrated via M-tapes include GPS inertial navigation set (GPS/INS) updates to improve targeting accuracy and GPS security, EGBU-12 (laser/GPS guided bomb), Mode 5 identification friend or foe (IFF), SDB with UAI, AIM-120D, joint mission planning system (JMPS), and Alpha II Lite. As part of OFP Transition and M6.5/ M7+ OFP upgrade, Lockheed Martin Aeronautics (LM Aero) and Ogden Air Logistics Center (OO-ALC) will split responsibility for software development. LM Aero will produce the common core software tape that will field as M6.5 with the EPAF nations and serve as the baseline for the USAF M7+ OFP. OO-ALC will have software

# UNCLASSIFIED

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0207133F: <i>F-16 SQUADRONS</i>
<p>development responsibility for the M7+ software/ hardware candidates being incorporated on USAF jets with M7+ Phase III OFP development scheduled to start in FY12.</p> <p>b. F-16 Blk 40-52 Legacy SLEP Structures: Structural-SLEP includes full scale durability test (FSDT) which requires a test fixture and structural analysis to begin structural testing. The test fixture began fabrication in FY11. FSDT is intended to determine whether the F-16 Block 40-52 airworthiness certification can be extended from the current certified service life of 8,000 equivalent flight hours (EFH) to 10,000+ EFH. In accordance with the Aircraft Structural Integrity Program (ASIP) and Military Standard MIL-STD 1530C, testing will support Blk 40-52 structural upgrade program that replaces or reworks known life-limited structure to preclude the onset of widespread fatigue damage, maintain safety of flight and enhance aircraft availability beyond 8,000 hours. Engineering, Manufacturing and Development (EMD) extends through FY16.</p> <p>c. F-16 Blk 40-52 Combat Avionics Programmed Extension Suite (CAPES): This avionics modernization program is needed to keep the F-16 Blk 40-52 aircraft viable in the threat environment beyond 2025. It includes but is not limited to an active electronically scanned array (AESA) radar that offers improved destruction of enemy air defenses (DEAD), and advanced electronic protection capabilities as well as improved reliability and maintainability; center pedestal display (CPD), which replaces the existing flight instrument cluster with a large higher resolution color multi-function display; electronic warfare suite (EW), which provides a single-point access for automated or hands-on EW system control; and integrated broadcast service (IBS) that integrates multiple intelligence broadcasts into a system of systems and migrates tactical receive terminals into a single related joint tactical terminal (JTT) family. Funding to begin design and development of capability modernization was requested as part of F-16 SLEP in the FY12 PB.</p> <p>d. Auto ground collision avoidance system (Auto GCAS) builds on the Air Force research laboratories (AFRL) fighter risk reduction program (FRRP) demonstrated capability and results in the Auto GCAS capability being production ready for incorporation in the M6.2+ OFP (Minor Tape) fielding in FY14 with potential for nearly eliminating controlled flight into terrain (CFIT) accidents, a leading cause of F-16 loss of pilot and aircraft accidents.</p> <p>e. EMD Hardware/Advanced Capability Improvements: EMD HW provides funding to develop, test, and qualify aircraft subsystems replaced or modified due to requirements changes, pre-planned product improvements (P3I), diminishing manufacturing source (DMS) and parts obsolescence. The approach to contracting varies by individual project. These hardware improvements include but are not limited to flight systems, improved navigation, multiplex architecture, modular mission computer (MMC) throughput memory upgrades, high speed data communications within the aircraft systems, embedded GPS inertial navigation set (GPS/INS) updates, Blk 40 air-to-air interrogator (AAI), digital video recorder, advanced data transfer equipment (ADTE) and related data transfer and retrieval devices, display upgrades, radio/communication studies, and CAS Data Link. Advanced Capability Improvements include software integration, sensor upgrades, radar updates and other self-protection/electronic protection (EP) enhancements, 4th/5th gen fighter network communications, lab and/or on-aircraft evaluation of potential subsystem changes/capability improvements on the F-16 as well as establishment of associated requirement specification changes. These capability improvements also fund integration of pods including updates and tech order changes (SNIPER, Harm targeting system (HTS), low (altitude) infrared targeting and navigating (LITENING)) etc. Advanced Capabilities also includes integration of new replacement DMS hardware for a crash survivable data recorder.</p> <p>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.</p>		

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force				DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0207133F: F-16 SQUADRONS				
B. Program Change Summary (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget		129.103	143.869	117.181	-	117.181
Current President's Budget		125.417	131.069	190.257	-	190.257
Total Adjustments		-3.686	-12.800	73.076	-	73.076
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-12.800			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-3.028	-			
• Other Adjustments		-0.658	-	73.076	-	73.076
Change Summary Explanation						
FY11 Adjustments Cong General Reductions \$.658M						
FY12 Congressional marks reduced Service Life Extension Program (SLEP) Structures Program by \$12.8M						
FY13 Funding increased to initiate Engineering & Manufacturing Development (EMD) phase for Combat Avionics Programmed Extension Suite (CAPES)						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013
Title: OFP Updates				71.828	89.227	78.912
Description: OFP Updates-Blk 40-52 OFP (M-tapes) are updated continually to integrate new weapons, targeting pods, improved avionics. M5.1+ has fielded, M5.2+ has completed DT&E phase and entered force development evaluation (FDE)with fielding scheduled for 2QFY2012, M6.1+ is in Phase III of OFP Development and forecast to complete DTE 2QFY12, FDE forecast to start Apr 2012 with fielding scheduled for Sep 2012, M7+ is in Phase II capability definition and candidate selection for the development of post M6+ MMC based avionics system software development.						
FY 2011 Accomplishments:						
M5.2+ OFP M tape is currently in force development evaluation (FDE), with fielding expected 2QFY12. M6.1+ Phase III OFP major release is approx 65% complete and is on schedule for meeting all internal SW SIL and flight test milestones for DT&E Completion scheduled for Jan 2012. M6.2+ Minor Tape contract has been awarded to LM Aero. Three cockpit review team meetings with the pilots were held to determine the priorities and candidate selection as part of M7+ OFP development at OO-ALC						
FY 2012 Plans:						

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force		<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0207133F: <i>F-16 SQUADRONS</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<p>M6.1+ Phase III OFP completes DT&amp;E Jan 2012 and is on track for fielding Sep 2012, M6.2+ Minor Tape will start SIL integration efforts. OO-ALC and the F16 SPO will document agreements on activities that will be performed as part of M7+ Phase III development efforts starting in May 2012 when M7+ detail design and code efforts for Phase III will begin. OFP transition from LM Aero to OO-ALC will be completed and final SIL HW asset requirements will be verified as part of the OFP transition from LM Aero to OO-ALC. The F-16 SPO will contract with LM Aero to do requirements definition for M6.5+ common OFP development efforts with EPAF.</p> <p><b>FY 2013 Plans:</b> Continue OFP software design and begin integration and DTE efforts for M6.2+ Minor tape which incorporates Auto GCAS as well as new FAA SW requirement that will allow Mode 5 to field as part of the M6.2+ Minor tape. M7+ completes design tryout (DTO) as part of Phase III risk reduction. Begin M8+ SW candidate assessment to include Combat Avionics Programmed Extension Suite (CAPES) OFP integration and initiates Alpha II Lite.</p>				
<p><b>Title:</b> Flight Test</p> <p><b>Description:</b> F-16 Baseline Flight Test funds F-16 test and evaluation at the Combined Test Facility (CTF) at Edwards AFB for developmental test (DT) including integration test of associated subsystems and weapons. Includes flight test activities to maintain test schedule for F-16 Block 40-52 OFPs, weapons integration, and sub-systems to ensure capabilities meet ACC's fielding schedule.</p> <p><b>FY 2011 Accomplishments:</b> FY11 funding supports CTF infrastructure (Government and Contractor) and DT flight sorties for Block 40-52 M6+ OFP DT&amp;E, Legacy OFPs (M4.3+/M5+) weapons/subsystem regression for advanced weapons, AIM-9X Block II and AIM-120, advanced radar risk reduction, Auto GCAS Integration Testing and M7+ initial design tryout (DTO) risk reduction testing.</p> <p><b>FY 2012 Plans:</b> FY12 funding supports CTF infrastructure (Government and Contractor) and DT flight sorties for Block 40/50 M6+ OFP DT&amp;E, legacy OFP (M4.3+/M5+) advanced weapons/subsystem regression for AIM-9X Block II and AIM-120, Auto GCAS and M7+ DTO testing completing 4QFY12.</p> <p><b>FY 2013 Plans:</b> FY13 funding supports CTF infrastructure (Government and Contractor) and DT flight DTE sorties for M6.2+ Minor Tape OFP as well as M7+ DTO testing.</p>		22.890	22.672	26.900
<p><b>Title:</b> Combat Avionics Programmed Extension Suite (CAPES)</p> <p><b>Description:</b> F-16 Blk 40/50 Combat Avionics Programmed Extension Suite (CAPES): This avionics modernization program is needed to keep the F-16 Blk 40-52 aircraft viable in the threat environment beyond 2025. It includes but is not limited to an</p>		-	10.924	69.700

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force		<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0207133F: <i>F-16 SQUADRONS</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<p>active electronically scanned array (AESA) radar that offers improved destruction of enemy air defenses (DEAD), and advanced electronic protection capabilities as well as improved reliability and maintainability; center pedestal display (CPD), which replaces existing flight instrument cluster with large higher resolution color multi-function display; electronic warfare (EW) updates (ALQ-213), which provides a single-point access for automated or hands-on EW system control; and integrated broadcast service (IBS) that integrates multiple intelligence broadcasts into a system of systems and migrates tactical receive terminals into a single related joint tactical terminal (JTT) family.</p> <p><b>FY 2011 Accomplishments:</b> N/A</p> <p><b>FY 2012 Plans:</b> The CAPES avionics modernization program will be conducting an integrated Group A risk study to enter source selection. Initial efforts require our prime integrator and subsystem vendors to define the F-16 CAPES avionics architecture, determine potential requirements, conduct studies on RF compatibility impacts, and gather assistance to draft the system requirement document (SRD). CAPES requires the assistance of our aircraft prime integrator, OO-ALC and several subsystem vendors to accomplish these tasks in FY12 to keep the program on schedule to meet an Aquisition Strategy Panel (ASP) in Feb 2012, release an Request For Proposal (RFP) in March 2012 and support Milestone B in FY13. ASP and RFP release must occur prior to initiating the CAPES EMD phase.</p> <p><b>FY 2013 Plans:</b> CAPES Source Selection will be completed and contract awarded for CAPES EMD. FY13 funds majority of CAPES test assets which are critical to successful completion of EMD development.</p>				
<p><b>Title:</b> Service Life Extension Program (SLEP) Structures</p> <p><b>Description:</b> F-16 Blk 40/50 Legacy Service Life Extension Program (SLEP) Structures: This structural-SLEP includes full scale durability test (FSDT) starting in FY11 and requires a test fixture and structural analysis to begin testing. FSDT is intended to determine whether the F-16 Block 40-52 airworthiness certification can be extended from the current certified service life of 8,000 EFH to 10,000+ EFH. In accordance with the Aircraft Structural Integrity Program (ASIP) and MIL-STD 1530C, testing will support Blk 40/50 structural upgrade program that replaces or reworks known life-limited structure to preclude the onset of widespread fatigue damage, maintain safety of flight and enhance aircraft availability beyond 8,000 hours. FSDT started in FY11 and EMD extends through FY16.</p> <p><b>FY 2011 Accomplishments:</b> Begin full scale durability test (FSDT) as test fixture hardware is procured, and strutural testing and analysis to enable the F-16 Block 40/42/50/52 airworthiness certification to be extended from the current certified service life of 8,000 EFH to 10,000+ EFH. In</p>		18.800	0.800	8.845

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force		<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0207133F: <i>F-16 SQUADRONS</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b> accordance with the Aircraft Structural Integrity Program (ASIP) and MIL-STD 1530C, a FSDT and a detailed structural analysis must be conducted before ASIP engineers can safely extend the airworthiness certification limits. \$11.8M of FY11 funds were restored which will allow for continued FSDT work into FY12.  <b>FY 2012 Plans:</b> Initiates structures EMD design to extend the current certified service life of 8,000 EFH to 10,000+ EFH. In accordance with the Aircraft Structural Integrity Program (ASIP) and MIL-STD 1530C, testing will support Blk 40/50 structural upgrade program that replaces or reworks known life-limited structure to preclude the onset of widespread fatigue damage, maintain safety of flight and enhance aircraft availability beyond 8,000 EFH.  <b>FY 2013 Plans:</b> Continue FSDT analysis and structures EMD design to extend the current certified service life of 8,000 EFH to 10,000+ EFH. In accordance with the Aircraft Structural Integrity Program (ASIP) and MIL-STD 1530C, testing will support Blk 40/50 structural upgrade program that replaces or reworks known life-limited structure to preclude the onset of widespread fatigue damage, maintain safety of flight and enhance aircraft availability beyond 8,000 hours.		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> EMD HW/Advanced Capabilities Improvements  <b>Description:</b> EMD Hardware/Advanced Capability Improvements: EMD HW provides funding to develop, test, and qualify aircraft subsystems replaced or modified due to requirements changes, pre-lanned roduct improvements (P3I) and diminishing manufacturing source (DMS)and parts obsolescence. The approach to contracting varies by individual project. These hardware improvements include but are not limited to flight systems, improved navigation, mux architecture, MMC throughput memory upgrades, high speed data communications within the aircraft systems, embedded GPS/INS updates, Blk 40 air-to-air interrogator (AAI), digital video recorder, advanced data transfer equipment (ADTE) and related data transfer devices and interfaces, display upgrades, radio/communication studies, and CAS data link. Advanced Capability Improvements include software integration, sensor upgrades, radar updates and other self-protection/electronic protection (EP) enhancements, 4th/5th gen fighter network communications, lab and/or on-aircraft evaluation of potential subsystem changes/capability improvements on the F-16 as well as establishment of associated requirement specification changes. These capability improvements also fund integration of pods including updates and tech order changes (SNIPER, HTS, LITENING) etc. Also includes integration of new replacement DMS hardware for a crash survivable data recorder.  <b>FY 2011 Accomplishments:</b> EMD hardware improvements include but are not limited to flight systems, improved navigation, mux architecture, MMC upgrade, embedded GPS/INS updates, Blk 40 air-to-air interrogator (AAI), digital video recorder, advanced data transfer equipment (ADTE) and related data transfer devices (Micro_Cid), display upgrades, radio, communication studies, and CAS data link.  <b>FY 2012 Plans:</b>		2.647	0.500	0.500

# UNCLASSIFIED

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force		<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0207133F: <i>F-16 SQUADRONS</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
EMD HW/Advanced Capabilities Improvements varies by individual project and is used to develop, test, and qualify aircraft subsystems replaced or modified due to requirements changes, pre-planned product improvements (P3I) and diminishing manufacturing source (DMS) and parts obsolescence unique to data transfer devices and interfaces (Micro CID). Advanced Capability Improvements include software integration, sensor upgrades, 4th/5th gen fighter network communications, lab and/or on-aircraft evaluation of potential subsystem changes/capability improvements on the F-16 as well as establishment of associated requirement specification changes. These capability improvements also fund integration of pods including updates and tech order changes.				
<b>FY 2013 Plans:</b> EMD HW/Advanced Capabilities Improvements varies by individual project and is used to develop, test, and qualify aircraft subsystems replaced or modified due to requirements changes, pre-planned product improvements (P3I) and diminishing manufacturing source (DMS) and parts obsolescence unique to data transfer devices (Micro CID). Advanced Capability Improvements include software integration, sensor upgrades, 4th/5th gen fighter network communications, lab and/or on-aircraft evaluation of potential subsystem changes/capability improvements on the F-16 as well as establishment of associated requirement specification changes. These capability improvements also fund integration of pods including updates and tech order changes.				
<b>Title:</b> Auto Ground Collision Avoidance System		9.252	6.946	5.400
<b>Description:</b> This program will nearly eliminate controlled flight into terrain (CFIT) accidents, a leading cause of F-16 loss of pilots and aircraft accidents. One study predicted this capability could have saved 10 pilots and 15 aircraft lost from CFIT accidents had it been available. Air Force 1067 signed by the Combat Air Force Requirements Oversight Council (CAFROC) on 3 Mar 2008 directed development of Auto GCAS for F-16 Blk 40-52 aircraft for fielding with M6.2+.				
The requested solution is for Auto GCAS and other flight control safety enhancements identified in Phase II for F-16 Blocks 40-52 aircraft to be integrated and delivered with the M6.2+ OFP in FY14. The effort is to qualify and release a digital flight control computer (DFLCC) configuration that is backward compatible with M6.1+ F-16 USAF OFP that can initiate DFLCC TCTO upgrades without Auto GCAS in the core avionics. Production configurations of the remaining software items will be incorporated during the M6.2+ effort and will enable the Auto GCAS function.				
<b>FY 2011 Accomplishments:</b> Completion of Phase IIIa efforts finalized all fighter risk reduction program capabilities, the Auto GCAS requirements mMatrix, cockpit reviews #1 and #2, select flight control safety enhancement requirements, identified at SRR. Negotiated Phase IIIb				

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force										DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0207133F: F-16 SQUADRONS							
C. Accomplishments/Planned Programs (\$ in Millions)										FY 2011	FY 2012	FY 2013
contract incorporates unqiue M6.1+ specific requirements (into core avionics, digital terrain system (DTS), mission planning and flight control OFPs) to allow Auto GCAS to begin system design tryout (DTO) later in the year.												
FY 2012 Plans: Continuation of Auto GCAS Phase IIIb efforts will address in-flight anomalies via software updates. The contractor will incorporate avionics and flight control requirements or requirement revisions (core avionics, DTS, mission planning and flight control OFPs) into DTO #2. Key efforts include configuring the DTO #2 digital flight control (DFLCC) flight test OFP as a production OFP and formally regression testing it with the F-16 USAF M6.1+ avionics suite so fielding of the DFLCC with an Auto GCAS enabled OFP can be initiated via TCTO prior to fielding with M6.2+ OFP.												
FY 2013 Plans: Continue Auto GCAS integration and testing for incorporation into the M6.2+ OFP (Minor Tape) scheduled to field in FY 2014 and finish updating support equipment software to accommodate Auto GCAS testing.												
Accomplishments/Planned Programs Subtotals										125.417	131.069	190.257
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
• Line Item 39, APAF Aircraft Proc...: Modifications	166.265	56.746	6.896	0.000	6.896	21.515	19.020	33.664	301.924	1,837.040	3,965.235	
• Line Item 94, APAF, Aircraft Pro...: Post Production Support	12.668	4.537	8.506	0.000	8.506	14.755	15.191	15.565	15.818	Continuing	Continuing	
E. Acquisition Strategy												
RDT&E funds will primarily be executed in developing improved capability, maintenance and safety mods. Operational flight program (OFP) software will be continuously updated to complement modification development efforts. OFP transition activities from LM Aero to OO-ALC started in FY06 as part of the "follower/leader" effort with software development starting with M7+.												
The F-16 Blk 40-52 Service Life Extension Program (SLEP) is comprised of two unique programs that will keep the F-16 aircraft viable in the threat environment beyond 2025. SLEP structures and CAPES are new programs to extend the service life and increase the capabilities of the F-16. SLEP-structures EMD runs through FY16, however, FY12 reflects Congressional marks of -\$12.8M. CAPES is scheduled to begin risk integration studies, and pre-milestone B activities (e.g. ASP, RFP release and source selection) to support EMD contract award in FY13.												
The EMD hardware development line provides funding to develop, test, and qualify aircraft subsystems upgrades, communication upgrades, parts obsolescence and diminishing manufacturing source (DMS). The approach to contracting varies by individual project. LM Aero is the prime contractor on all systems except the General												



**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force		DATE: February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0207133F: <i>F-16 SQUADRONS</i>
Electric engines and the Pratt & Whitney engines. Contract types are Time and Material (T&M), Cost Plus Incentive Fee (CPIF), Cost Plus Fixed Fee (CPFF) and Firm Fixed Price (FFP).		
<b>F. Performance Metrics</b> Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.		

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207133F: <i>F-16 SQUADRONS</i>	PROJECT 672671: <i>F-16 Squadrons</i>

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0207133F: <i>F-16 SQUADRONS</i>	<b>PROJECT</b> 672671: <i>F-16 Squadrons</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
M5.2+ Field	2	2012	2	2012
M6.1+ Field	4	2012	4	2012
M6.2+ Minor Tape Field	2	2014	2	2014
M7.1+ Field	3	2016	3	2016
Auto GCAS Field	3	2014	3	2014
Mode 5 IFF Field	2	2014	2	2014
Full Scale Durability Test Contract Award	3	2011	3	2011
Service Life Extension Program (SLEP) Structures EMD Complete	4	2016	4	2016
CAPES Avionics Development EMD	2	2013	4	2017