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**Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force** **Date:** February 2015

<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 0207134F / <i>F-15E Squadrons</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	227.098	241.969	179.283	-	179.283	255.081	246.006	221.672	227.836	-	1,598.945
670131: <i>Initial Operational Test and Evaluation</i>	0.000	62.563	84.350	44.969	-	44.969	9.426	-	-	-	-	201.308
676020: <i>F-15</i>	0.000	164.535	157.619	134.314	-	134.314	245.655	246.006	221.672	227.836	-	1,397.637

**Note**  
In FY 2015, PE 0207134F Project 670131 Initial Operation Test and Evaluation, EPAWSS efforts were transferred to PE 0207171F Project 676038 EPAWSS to improve transparency for ACAT I program.

In FY 2016, EPAWSS efforts were transferred from Budget Activity 7, Operational Systems Development, PE 0207171F, Project Number 676038 to Budget Activity 5, Engineering and Manufacturing Development, PE 0207171F, Project Number 657108 per OSD direction.

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

The F-15 is the most versatile fighter in the world today. The F-15C/D continues to provide air superiority with an undefeated and unmatched aerial combat record. The F-15E retains this air superiority capability and adds systems, such as advanced imaging and targeting systems, to meet the requirement for all-weather, deep penetration, and night/under-the-weather, air-to-surface attack. Configured with conformal fuel tanks (CFTs), the F-15E deploys worldwide with minimal tanker support and arrives combat-ready. A mainstay in operations both domestic and abroad, upgrades to the F-15 (avionics, armament, airframe, and engines) are critical to maintaining combat viability (lethality, survivability, and supportability). Projected to remain in service past 2035, avionics modernization is key to long-term weapon system viability. This modernization is built on a foundation of technical and acquisition support studies (both internal to the Air Force and through outside contractors), forestalling obsolescence, exploiting proven technological advances, and leveraging new technology. Major avionics upgrades center around radar modernization (both hardware and software upgrades) and the exploitation of enhanced capability via precision timing, data delivery and processing technology, precision registration systems, cockpit Head Up Display (HUD), instrumentation digitization and modernization, central computer processing power increases, digital mission event recording systems and an infrared (IR) based fire control system. Funds are also used, as required, to resolve Diminishing Manufacturing Sources and Material Shortage (DMSMS) issues. The proliferation of fourth generation enemy aircraft and sophisticated "double-digit" anti-aircraft missile systems pose a significant threat to F-15 survivability. A fully integrated electronic warfare suite holds the promise of providing survivability as well as expanded electronic attack capability. Nearly all improvements are linked to an aircraft operational flight program update schedule that works to integrate new capabilities with the airframe. These updates are a responsive way to increase the offensive and defensive capability and survivability of the F-15. Incorporation of corresponding spiral and/or phased technology/equipment improvements that include support equipment, mission planning systems, and training device upgrades will improve performance, supportability, and aircrew training.

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

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Air Force **Date:** February 2015

<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 0207134F / <i>F-15E Squadrons</i>
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The FY2016 funding request was reduced by \$39.869 million to account for the availability of prior execution balances.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	234.289	261.969	250.362	-	250.362
Current President's Budget	227.098	241.969	179.283	-	179.283
Total Adjustments	-7.191	-20.000	-71.079	-	-71.079
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-20.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-7.191	-			
• Other Adjustments	-	-	-71.079	-	-71.079

**Change Summary Explanation**

FY2014: Funding decreased -\$7.191 million for SBIR.

FY2015: Funding decreased -\$20.000 million for congressional marks; -\$15.000 million for "improving funds management: forward financing" and -\$5 million for "restoring acquisition accountability: Infrared Search and Track."

In FY 2015, EPAWSS efforts were transferred from Budget Activity 7, Operational Systems Development, PE 0207134F, Project Number 670131 to Budget Activity 7, Operational Systems Development, PE 0207171F, Project Number 676038 per Air Force direction.

The FY2016 \$31.21 million was directed to support higher Air Force priorities.

The FY2016 funding request was reduced by \$39.869 million to account for the availability of prior execution balances.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Air Force										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 3600 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons				<b>Project (Number/Name)</b> 670131 / Initial Operational Test and Evaluation			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
670131: <i>Initial Operational Test and Evaluation</i>	-	62.563	84.350	44.969	-	44.969	9.426	-	-	-	-	201.308
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This includes development of the F-15C/D and F-15E Advanced Display Core Processor (ADCP) II and the F-15C/D and F-15E Eagle Passive/Active Warning Survivability System (EPAWSS) (EPAWSS funds for FY14 only are in PE 0207134F).

The ADCP II will develop a common mission computer for the F-15C/D and F-15E. The current mission computers of both platforms have reached their limits of speed, memory and throughput. Additionally, digital systems have changed the security requirements of both platforms and the older mission computers cannot be upgraded to meet these new requirements. A common mission computer is expected to reduce overall development costs as well as long term maintenance costs. The program will also develop a new F-15C/D cockpit display to replace an obsolete one.

EPAWSS will replace the obsolete Tactical Electronic Warfare System (TEWS), which will help the aircraft survive in high threat environments.

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.

The FY2016 funding request was reduced by \$39.869 million to account for the availability of prior year balances.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Eagle Passive/Active Warning Survivability System (EPAWSS)	9.600	-	-
<b>Description:</b> EPAWSS for FY 14 is under Project Number 670131 and PE 027134F. For FY 15 PB EPAWSS is under Project Number 676038 and PE 027171F.			
Planned replacement of the existing F-15 self-protection, Tactical Electronic Warfare System (TEWS). This includes technical and acquisition related studies.			
<b>FY 2014 Accomplishments:</b> Continued evaluating EPAWSS integration requirements and interface characteristics, conducting security planning and developing system specifications. Continued acquisition planning for Milestone A. Technical and acquisition related studies.			
<b>FY 2015 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Air Force		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons	<b>Project (Number/Name)</b> 670131 / Initial Operational Test and Evaluation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Not applicable.			
<p><b>Title:</b> Advanced Display Core Processor (ADCP) II (formerly known as Computer Processor Modernization Program and Advanced Display Core Processor Plus w/Vertical Situation Display. FY12 combined programs)</p> <p><b>Description:</b> New central computer for both F-15E and F-15C modernization. Program provides a central computer upgrade for the entire F-15E fleet, replacing the ACDP I. Program also provides a central computer upgrade to the AESA-radar F-15C fleet, replacing the VCC as well the existing F-15C Vertical Situation Display. This includes technical and acquisition-related studies</p> <p><b>FY 2014 Accomplishments:</b> Conducted EMD activities. Began delivery of EMD ADCP II Line Replaceable Units. Continued development of initial Common OFP. Continued software development and testing on EMD hardware.</p> <p><b>FY 2015 Plans:</b> Conduct EMD activities. Continue software and hardware testing. Begin delivery of display EMD units. Flight Test Readiness Review (FTRR) for DT/OT flight testing. Finalize installation TCTO for flight test. Begin combined DT/OT flight testing on F-15E aircraft. Begin system stability and endurance testing.</p> <p><b>FY 2016 Plans:</b> Conduct EMD activities. Complete environmental qualification and Systems Integration Lab activities. Continue delivery of display EMD units. Conduct combined DT/OT flight testing on F-15 aircraft.</p>	52.963	84.350	44.969
<b>Accomplishments/Planned Programs Subtotals</b>	62.563	84.350	44.969

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF: BA05: Line Item # F01500: <i>Aircraft Modification: F-15: PEs</i> 0207130/0207134/0207445/0809731	346.624	387.314	644.336	-	644.336	476.060	489.257	530.457	-	Continuing	Continuing
• APAF: BA07: Line Item # 000071: <i>Aircraft Replacement</i> <i>Support Equip (BP12)</i>	-	-	-	-	-	-	-	-	-	Continuing	Continuing
• APAF: BA07: Line Item # F0150P: <i>F-15 Post Production Support</i>	2.403	1.122	3.253	-	3.253	3.039	2.583	2.613	-	Continuing	Continuing
• APAF: BA06: Line Item # 000999: <i>Initial Spares/Repair Parts (BP16)</i>	20.813	24.785	61.961	-	61.961	58.263	37.805	38.512	-	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Air Force		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons	<b>Project (Number/Name)</b> 670131 / Initial Operational Test and Evaluation

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**Remarks**

**D. Acquisition Strategy**

Program is a continuation of effort which includes the development for all F-15 models. Funds are executed organically in support of equipment improvement, study, analysis, and test. Acquisition and management strategies for each program are independently developed and use a variety of contract methods and types to accomplish program objectives.

**E. Performance Metrics**

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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons	<b>Project (Number/Name)</b> 670131 / Initial Operational Test and Evaluation
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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			
F-15 ADCP II Contract	SS/CPIF	Boeing : St Louis, MO	0.000	45.582	Nov 2013	69.240	Nov 2014	33.576	Nov 2015	-		33.576	7.226	155.624	-
F-15 ADCP II	Various	Various : Various,	0.000	5.634	Mar 2014	13.981	Mar 2015	10.210	Mar 2016	-		10.210	2.200	32.025	-
F-15 EPAWSS (Pre-MDAP)	TBD	TBD : TBD,	0.000	9.600	Jan 2014	-		-		-		-	-	9.600	-
<b>Subtotal</b>			0.000	60.816		83.221		43.786		-		43.786	9.426	197.249	-

**Remarks**  
 The individual program reference to "various" contract methods addresses other government costs for trainers, test, hardware, special studies, telemetry kits, etc. that are required to meet each program's objectives. The execution vehicles between these DoD entities vary by effort.

FY14PB - Project Number 670131 includes ADCP II and EPAWSS only. All other programs funded under Project Number 676020.

FY15PB - Project Number 670131 includes ADCP II only. EPAWSS is now under PE 027171F, Project Number 676038.

FY16PB - Project Number 670131 includes ADCP II only. EPAWSS is moved in FY 16 from PE 027171F, Project Number 676038 to PE 027171F, Project Number 657108.

<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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			
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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			
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 Air Force</b>											<b>Date:</b> February 2015				
<b>Appropriation/Budget Activity</b> 3600 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons					<b>Project (Number/Name)</b> 670131 / Initial Operational Test and Evaluation				

<b>Management Services (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Program Management Support Costs	Various	Various : Various,	0.000	1.747	Sep 2014	1.129	Sep 2015	1.183	Sep 2016	-		1.183	-	4.059	-
<b>Subtotal</b>			0.000	1.747		1.129		1.183		-		1.183	-	4.059	-

**Remarks**  
 The individual program reference to "various" contract methods addresses other government costs for trainers, test, hardware, special studies, telemetry kits, etc. that are required to meet each program's objectives. The execution vehicles between these DoD entities vary by effort.

	<b>Prior Years</b>	<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	0.000	62.563		84.350		44.969		-		44.969	9.426	201.308	-

**Remarks**





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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Air Force		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / <i>F-15E Squadrons</i>	<b>Project (Number/Name)</b> 670131 / <i>Initial Operational Test and Evaluation</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
ADCP II EMD	2	2014	4	2017
F-15E DT	1	2016	3	2016
F-15C DT	3	2016	2	2017
FDE	3	2017	4	2017
MS C (15 Sep 16)	4	2016	4	2016
Production Decision (15 May 17)	3	2017	3	2017
F-15E Installs	3	2018	4	2020
F-15C Installs	3	2018	4	2020

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Air Force										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 3600 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons				<b>Project (Number/Name)</b> 676020 / F-15			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
676020: F-15	-	164.535	157.619	134.314	-	134.314	245.655	246.006	221.672	227.836	-	1,397.637
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

These development efforts include F-15 Radar Enhancements Electronic Protection (EP) capabilities, Operational Flight Program (OFP) upgrades, Flight Testing, Infrared Search and Track (IRST), and Multifunctional Information Distribution System-Joint Technical Radio System (MIDS-JTRS).

The Radar Enhancements (EP) will upgrade the digital Active Electronic Scanned Array (AESA) radar capabilities to counter sophisticated electronic threats. Suite 7C introduces EP into the C-model fleet. Initial EP capability for APG-82(V)1 equipped E model aircraft will take place in Suite 8E. Suite 9 will add additional EP capability to both the E- and C-model jets.

For the F-15 to maintain operational effectiveness, the program must continuously provide the platforms with improved capabilities. To accomplish this there is an on-going need to develop software upgrades and to flight test new capabilities and systems. The OFP funding line allows the Air Force to release software upgrades approximately every 3 years. At any one time there will normally be three OFP upgrades in work: one in requirements definition/pricing, one in code writing and test, and one in flight test and release preparation. The Flight Test funding line allows the Air Force to fund the on-going test effort.

Infrared Search and Track (IRST) system will provide air to air detection, tracking and ranging capability for F-15C/D in a radar-denied environment.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Operational Flight Program (OFP) Development Efforts	127.429	110.482	77.200
<b>Description:</b> Provides OFP program software and hardware updates to integrate new capabilities on all F-15 aircraft. This includes technical and acquisition related studies.			
<b>FY 2014 Accomplishments:</b> Completed Suite 7C (S7C) development and operational flight testing, conduct verification and validation of technical publications, prepare for delivery. Began integration of Sniper/Delta 0+ on the F-15C to meet critical PACOM requirements. Continued Suite 8E (S8E) development. Finished coding, conduct bench testing and begin flight testing of S8E. Completed integration of Alpha 2 Lite and begin integration of Joint-Air-to-Surface Standoff Missile-Extended Range (JASSM-ER) Universal Armament Interface (UAI)			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Air Force		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons	<b>Project (Number/Name)</b> 676020 / F-15		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>into the OFP. Continue Suite 9 (S9) development. Continued organic software support and Special Projects development efforts. Continued funding support for all F-15 trainers. Continued Problem Reports (PR) and Deficiency Reports (DR) fixes.</p> <p><b>FY 2015 Plans:</b> Deliver S7C to the field. Continue S8E development &amp; flight testing. Continue JASSM-ER development onto the F-15. Continue S9 development. Continuation of organic software support and Special Projects development efforts. Continue funding support for all F-15 trainers. Ongoing Problem Reports (PR) and Deficiency Reports (DR) fixes.</p> <p><b>FY 2016 Plans:</b> Finish integration of Sniper on the F-15C to meet critical PACOM requirements. Deliver S7C+ to the field. Continue S8E development. Complete S8E flight testing and accomplish S8E Validation and Verification. Integrate JASSM-ER training mode into the S8E. Continue S9 development and integration of major line items; such as, B61-12 LEP, DTM II, PAD, &amp; EPAWSS. Additionally, MIDS-JTRS will be integrated into F-15 OFPs. Continuation of organic software support and Special Projects development efforts. Continue funding support for all F-15 trainers. Ongoing Problem Reports (PR) and Deficiency Reports (DR) fixes.</p>				
<p><b>Title:</b> Flight Test</p> <p><b>Description:</b> Flight tested improvements initiated in prior years. Baselined infrastructure and personnel support for F-15 Developmental Test (DT) and Initial Operational Test &amp; Evaluation (IOT&amp;E) operations. Purchased long-lead test support assets and unique aircraft test instrumentation. This included technical and acquisition related studies.</p> <p><b>FY 2014 Accomplishments:</b> F-15 Flight Test Support provided prime contractor support cadre at Eglin and Nellis for DT/IOT&amp;E support, avionics integration lab O&amp;M, CTF O&amp;M, and long-lead test unique equipment; i.e., program specific aircraft instrumentation, weapons instrumentation kits, weapons simulators, data reduction/handling equipment.</p> <p><b>FY 2015 Plans:</b> F-15 Flight Test Support provides prime contractor support cadre at Eglin and Nellis for DT/IOT&amp;E support, avionics integration lab O&amp;M, CTF O&amp;M, and long-lead test unique equipment; i.e., program specific aircraft instrumentation, weapons instrumentation kits, weapons simulators, data reduction/handling equipment.</p> <p><b>FY 2016 Plans:</b> F-15 Flight Test Support provides prime contractor support cadre at Eglin and Nellis for DT/IOT&amp;E support, avionics integration lab O&amp;M, CTF O&amp;M, and long-lead test unique equipment; i.e., program specific aircraft instrumentation, weapons instrumentation kits, weapons simulators, data reduction/handling equipment</p>		18.345	19.858	20.246
<p><b>Title:</b> F-15 Radar Enhancements</p>		18.761	22.008	18.421

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Air Force **Date:** February 2015

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons	<b>Project (Number/Name)</b> 676020 / F-15
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<p><b>Description:</b> Improvements to F-15 Radar Enhancements (EP). This includes technical and acquisition related studies.</p> <p><b>FY 2014 Accomplishments:</b> Continued implementation of EP into Suite 8E (S8E) &amp; Suite 9 (S9). Began radar integration in support of S9 EP development. Began jammer development. Continued Special Projects testing support.</p> <p><b>FY 2015 Plans:</b> Continue implementation of EP into S8E &amp; S9. Continue jammer development. Continue Special Projects testing support.</p> <p><b>FY 2016 Plans:</b> Continue implementation of EP into S8E &amp; S9. Continue Special Projects testing support.</p>			
<p><b>Title:</b> F-15 Infrared Search and Track (IRST) - FY15 New Start</p> <p><b>Description:</b> The Infrared Search and Track (IRST) system IRST will provide the F-15Cs with the capability will detect and track objects by infrared radiation. The IRST complements other onboard sensors by scanning a large volume of air space, fills gaps left by other sensors. This capability complements the radar to enhance survivability and lethality against air-to-air threats, provides a passive infrared sensor system that searches for and detects infrared energy, and provides the aircraft mission computer track file data on infrared targets.</p> <p><b>FY 2014 Accomplishments:</b> Not applicable</p> <p><b>FY 2015 Plans:</b> Initiate technical and acquisition related studies. Early acquisition planning.</p> <p><b>FY 2016 Plans:</b> Initiate technical and acquisition related studies. Continued acquisition planning. EMD contract award late FY16. Execute risk reduction activities required to support EMD phase.</p>	-	5.271	18.447
<b>Accomplishments/Planned Programs Subtotals</b>	164.535	157.619	134.314

<b>C. Other Program Funding Summary (\$ in Millions)</b>										
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete Total Cost
• APAF: BA05: Line Item # F01500: F-15 Modification of In-Service Aircraft, PEs 0207130/0207134/0207445/0809731	346.624	387.314	644.336	-	644.336	476.060	489.257	530.457	-	Continuing Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Air Force		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons	<b>Project (Number/Name)</b> 676020 / F-15

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

Line Item	FY 2014	FY 2015	FY 2016	FY 2016	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Cost To	
			Base	OCO	Total					Complete	Total Cost
• APAF: BA06: Line Item # 000999: <i>Initial Spares/Repair Parts (BP16)</i>	20.813	24.785	61.961	-	61.961	58.263	37.805	38.512	-	Continuing	Continuing
• APAF: BA07: Line Item # F0150P: <i>F-15 Post Production Support</i>	2.403	1.122	3.253	-	3.253	3.039	2.565	2.613	-	Continuing	Continuing
• APAF: BA07: Line Item # 000071: <i>Aircraft Replacement Support Equip (BP12)</i>	-	-	-	-	-	-	-	-	-	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Program is a continuation of effort which includes the development of all F-15 models. Funds are executed organically in support of equipment improvement, study, analysis, and test. Acquisition and management strategies for each program are independently developed and use a variety of contract methods and types to accomplish program objectives.

**E. Performance Metrics**

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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons	<b>Project (Number/Name)</b> 676020 / F-15
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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 Suite 7/8/9/10 Development and Test	SS/ Various	Boeing : St. Louis, MO	0.000	101.468	Aug 2014	110.114	Aug 2015	71.263	Aug 2016	-		71.263	396.490	679.335	-
OFP Suite 7/8/9/10 Development and Test Various	Various	Various : Various,	0.000	-		-		-		-		-	-	-	-
F-15 Radar Enhancement	SS/ Various	Boeing : St Louis, MO	0.000	43.823	Aug 2014	21.312	Aug 2015	18.063	Aug 2016	-		18.063	210.912	294.110	-
F-15 Radar Enhancement Various	Various	Various : Various,	0.000	-		-		-		-		-	-	-	-
F-15 Infrared Search and Track	C/Various	TBD : ,	0.000	-		5.271	Aug 2015	18.447	Aug 2016	-		18.447	259.054	282.772	-
Multifunctional Information Distribution System-Joint Technical Radio System (MIDS-JTRS)	SS/ Various	Boeing : St. Louis, MO	0.000	-		-		5.200	Aug 2016	-		5.200	-	5.200	-
<b>Subtotal</b>			0.000	145.291		136.697		112.973		-		112.973	866.456	1,261.417	-

**Remarks**  
The individual program reference to "various" contract methods addresses other government costs for trainers, test, hardware, special studies, telemetry kits, etc. that are required to meet each program's objectives. The execution vehicles between these DoD entities vary by effort.

<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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			
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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			
Boeing (Contractor Test Support)	SS/CPFF	Boeing : St. Louis, MO	0.000	18.345	Sep 2014	19.858	Sep 2015	20.246	Sep 2016	-		20.246	74.713	133.162	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / F-15E Squadrons	<b>Project (Number/Name)</b> 676020 / F-15
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<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Flight Test Support	Various	Various : ,	0.000	-		-		-		-		-	-	-	-
<b>Subtotal</b>			0.000	18.345		19.858		20.246		-		20.246	74.713	133.162	-

**Remarks**  
The individual program reference to "various" contract methods addresses other government costs for trainers, test, hardware, special studies, telemetry kits, etc. that are required to meet each program's objectives. The execution vehicles between these DoD entities vary by effort.

<b>Management Services (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Program Mgt Support Costs	Various	Various : Various,	0.000	0.899	Sep 2014	1.064	Sep 2015	1.095	Sep 2016	-		1.095	-	3.058	-
<b>Subtotal</b>			0.000	0.899		1.064		1.095		-		1.095	-	3.058	-

**Remarks**  
The individual program reference to "various" contract methods addresses other government costs for trainers, test, hardware, special studies, telemetry kits, etc. that are required to meet each program's objectives. The execution vehicles between these DoD entities vary by effort.

	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	0.000	164.535	157.619	134.314	-	134.314	941.169	1,397.637	-

**Remarks**





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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Air Force **Date:** February 2015

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207134F / <i>F-15E Squadrons</i>	<b>Project (Number/Name)</b> 676020 / <i>F-15</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
OFP Continuous Development	1	2014	4	2019
OFP Suite 7C Fielding	1	2015	1	2015
OFP Suite 8E Fielding	3	2016	4	2016
OFP Suite 9 MS B	3	2015	3	2015
OFP Suite 9 EMD Award	4	2015	4	2015
OFP Suite 9 Fielding	1	2019	3	2020
Infrared Search and Track Development	2	2015	4	2019
Radar Enhancements Suite 8E Fielding	4	2016	4	2016
Infrared Search and Track Development MS B	3	2017	3	2017
Infrared Search and Track Development EMD Award	1	2018	1	2018