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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0207171F / F-15 EPAWSS							
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	-	38.944	-	-	-	-	-	-	-	-	38.944
676038: EPAWSS	0.000	-	38.944	-	-	-	-	-	-	-	-	38.944
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2015, Project 676038 EPAWSS efforts were transferred from PE 0207134F, F-15 EPAWSS, Project 670131, Initial Operation Test and Evaluation to improve transparency for ACAT I program.

In FY 2016, PE 0207171F, F-15 EPAWSS, Project 676038 was transferred to PE 0207171F, F-15 EPAWSS, Project 657108 BA05 to align BA with stage of development.

A. Mission Description and Budget Item Justification

The F-15 is the most versatile fighter in the world today. The F-15C 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. 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 2040, 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). The proliferation of fourth generation enemy aircraft, sophisticated "double-digit" anti-aircraft missile systems and other enemy systems pose a significant threat to F-15 survivability. The F-15 Eagle Passive Active Warning and Survivability System (EPAWSS) will replace the F-15's functionally obsolete self-defense Tactical Electronic Warfare System (TEWS) to enhance weapon system situational awareness and survivability against enemy threats. F-15 EPAWSS will also improve reliability and sustainability. F-15 EPAWSS is linked to an aircraft operational flight program update schedule that works to integrate new capabilities with the airframe. 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.

The F-15 EPAWSS upgrade will significantly improve the F-15's capability to autonomously and automatically detect, identify and locate radio frequency (RF) threats as well as provide the ability to deny, degrade, deceive, disrupt and defeat RF and electro-optical / infrared (EO / IR) threat systems in contested and unplanned operations within highly contested environments through 2040. The F-15 EPAWSS will provide indication, type and position of ground-based RF threats as well as the indication, type and bearing of airborne threats with the situational awareness needed to avoid, engage or negate the threat. The F-15 EPAWSS will prevent RF and IR threat systems from detecting or acquiring accurate targeting information prior to threat engagement to complicate and / or negate an enemy threat targeting solution--and effectively counter enemy missiles / weapons if adversary threat systems engage and employ weapons against friendly forces--through components such as chaff, flares, decoys / angle countermeasures and jamming.

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BA7- 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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total			
Previous President's Budget				-	68.944	160.521	-	160.521			
Current President's Budget				-	38.944	-	-	-			
Total Adjustments				-	-30.000	-160.521	-	-160.521			
• Congressional General Reductions				-	-						
• Congressional Directed Reductions				-	-30.000						
• Congressional Rescissions				-	-						
• Congressional Adds				-	-						
• Congressional Directed Transfers				-	-						
• Reprogrammings				-	-						
• SBIR/STTR Transfer				-	-						
• Other Adjustments				-	-	-160.521	-	-160.521			
C. Accomplishments/Planned Programs (\$ in Millions)							FY 2014	FY 2015	FY 2016		
Title: Eagle Passive/Active Warning Survivability System (EPAWSS)							-	38.944	-		
Description: Planned replacement of the existing F-15 self-protection, Tactical Electronic Warfare System (TEWS). This includes technical and acquisition related studies.											
FY 2014 Accomplishments: Included in PE 027134F, Project Number 670131.Completed requirements development and obtained JROC approval of CDD. Completed SRD development and released RFP for TMRR design contract.											
FY 2015 Plans: Award and execute TMRR design contract. Develop and release Request for Proposal for EMD contract. Continue acquisition planning for EMD and Milestone B. Continue acquisition and technical related studies.											
Accomplishments/Planned Programs Subtotals							-	38.944	-		
D. Other Program Funding Summary (\$ in Millions)											
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 #	-	-	-	-	-	-	-	-	-	Continuing	Continuing
F15EWS: Aircraft Modification											

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D. 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>
Remarks												
E. Acquisition Strategy Acquisition Strategy is under development.												
F. 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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207171F / F-15 EPAWSS	Project (Number/Name) 676038 / EPAWSS
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Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
F-15 EPAWSS TMRR	TBD	TBD : TBD,	0.000	-		28.779	Aug 2015	-		-		-	-	28.779	28.088
F-15 EPAWSS (EMD Effort)	TBD	TBD : TBD,	0.000	-		-		-		-		-	-	-	-
F-15 EPAWSS	Various	Various : Various,	0.000	-		8.913	Aug 2015	-		-		-	-	8.913	9.764
Subtotal			0.000	-		37.692		-		-		-	-	37.692	-

Remarks

The individual program reference to "various" contract methods addresses other government costs for trainers, test, hardware, special studies, etc. that are required to meet F-15 EPAWSS program objectives. The execution vehicles between these DoD entities vary by effort.

FY14PB - Project 670131 includes EPAWSS.

FY15PB - PE 27171F, project 676038 includes EPAWSS only.

FY16PB - 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.

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-

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Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support Costs	Various	Various : Various,	0.000	-		1.252	Sep 2015	-		-		-	-	1.252	-
Subtotal			0.000	-		1.252		-		-		-	-	1.252	-

Remarks
 The individual program reference to "various" contract methods addresses other government costs for trainers, test, hardware, special studies, etc. that are required to meet F-15 EPAWSS programming objectives. The execution vehicles between these DoD entities vary by effort.

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		38.944		-		-		-	-	38.944	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force	Date: February 2015
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207171F / <i>F-15 EPAWSS</i>	Project (Number/Name) 676038 / <i>EPAWSS</i>
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
AoA Complete																												
CDD JROC Approved																												
EPAWSS MS A																												
EPAWSS TMRR Contract Award																												
EPAWSS MS B																												
EPAWSS EMD contract award																												
EPAWSS MS C																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207171F / <i>F-15 EPAWSS</i>	Project (Number/Name) 676038 / <i>EPAWSS</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AoA Complete	2	2014	2	2014
CDD JROC Approved	4	2014	4	2014
EPAWSS MS A	4	2015	4	2015
EPAWSS TMRR Contract Award	4	2015	4	2015
EPAWSS MS B	4	2016	4	2016
EPAWSS EMD contract award	4	2016	4	2016
EPAWSS MS C	2	2019	2	2019