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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 0207161F I Tactical AIM Missiles							
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	54.914	12.376	29.739	43.360	-	43.360	52.836	13.984	13.244	13.481	1.620	235.554
674132: AIM-9 Product Improvement	54.914	12.376	29.739	43.360	-	43.360	52.836	13.984	13.244	13.481	1.620	235.554
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Program MDAP/MAIS Code:** 442

**Note**

Funding in FY11 and out is for the Block II program only. The AIM-9X Block I program costs for FY11 and prior are \$233.583M. The AIM-9X Block II program costs for FY13 and prior are \$54.914M.

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

The AIM-9X (Sidewinder) short-range air-to-air missile is a long-term evolution of the AIM-9 series of fielded missiles. The AIM-9X missile program provides a launch and leave, air combat munition that uses passive infrared (IR) energy for acquisition and tracking of enemy aircraft and complements the Advanced Medium Range Air-to-Air Missile (AMRAAM). Air superiority in the short range air-to-air missile arena is essential and includes first-shot, first-kill opportunity against an enemy employing IR countermeasures. The AIM-9X employs several components common with the AIM-9M (fuze, rocket motor, and warhead). Anti-Tamper features have been incorporated to protect improvements inherent in this design. AIM-9X is a Post Milestone III, Acquisition Category 1C (ACAT 1C) joint-service program with Navy lead.

The Block II program is in Low Rate Initial Production (LRIP) and the LRIP-4 contract was awarded in June 2014. This budget line item continues to fund the development, test and integration of software updates to the missile, redesign of obsolete missile components, insensitive munitions improvements and aircraft platform integration to ensure these capabilities perform in accordance with established requirements as documented in the Capabilities Production Document. Beginning in FY 2016, Navy will join the US Air Force efforts already in progress to develop missile software improvements for the next incremental version 9.4 (v9.4) as well as hardware updates to improve Insensitive Munitions performance.

AIM-9X Block I concluded in FY2011 and all funding/quantity data in the documents are associated with Block II activities.

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.

The FY2016 funding request was reduced by \$2.484 million to account for the availability of prior execution balances.

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B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	
Previous President's Budget	12.760	29.739	46.133	-	46.133	
Current President's Budget	12.376	29.739	43.360	-	43.360	
Total Adjustments	-0.384	-	-2.773	-	-2.773	
• Congressional General Reductions	-	-				
• Congressional Directed Reductions	-	-				
• Congressional Rescissions	-	-				
• Congressional Adds	-	-				
• Congressional Directed Transfers	-	-				
• Reprogrammings	-	-				
• SBIR/STTR Transfer	-0.384	-				
• Other Adjustments	-	-	-2.773	-	-2.773	
Change Summary Explanation						
The FY2016 funding request was reduced by \$2.484 million to account for the availability of prior execution balances.						
The FY2016 funding request was reduced by \$0.289 million to fund higher Air Force priorities.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2014	FY 2015	FY 2016
Title: Air Intercept Missile - 9X, Product Development				12.376	25.481	39.174
Description: Continuation of Primary Hardware Development/Pre-Planned Product Improvement (P3I) efforts for the AIM-9X weapon system. This includes Systems Engineering/Program Management (SEPM), as well as associated governmental and contractor support required to ensure AIM-9X missile integration with threshold aircraft platforms. Also, includes efforts to redesign missile components in order to resolve Block II common component obsolescence, implement cost reduction initiatives, and to comply with the Insensitive Munitions (IM) requirements as established by Joint Requirements Oversight Council memo dated 11 February 2009. The program will implement improvements to the warhead developed by Navy Research Laboratory, to incorporate into the AIM-9X Block II production missile. Beginning in FY2016, the Navy will join in the Air Force efforts that began in FY2015 to develop software improvements for the next incremental version 9.4 (v9.4x) to incorporate into the FY2017 AIM-9X Block II production missile.						
FY 2014 Accomplishments: Continued support of AIM-9X Block II integration. Continued support of Operational Test anomaly resolution. Identified missile component obsolescence redesign critical to maintaining production for the Block II missile system in accordance with the program Capabilities Production Document (CPD) objectives.						
FY 2015 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)								FY 2014	FY 2015	FY 2016	
Continue support of Block II integration and OT. Continue development of v9.4 Block II software and integration efforts with threshold aircraft platforms including improvements associated with the F-15 to utilize full capability of the Block II missile. Continue study on IM alternatives and risk reduction methods. Continue Engineering Manufacturing Development (EMD) required to redesign, integrate, test and qualify components due to obsolescence and implement cost reduction initiatives.  <b>FY 2016 Plans:</b> Continue development of v9.4 Block II software and integration efforts with threshold aircraft platforms including improvements associated with the F-15 suite 9 Operational Flight Program (OFP) to utilize full capability of the Block II missile. Continue study on IM alternatives and risk reduction methods to enhance IM performance. Continue EMD required to redesign, integrate, test and qualify components due to obsolescence and implement cost reduction initiatives.											
<b>Title:</b> Air Intercept Missile - 9X, Test and Evaluation  <b>Description:</b> Funding required for Test & Evaluation (T&E) and associated governmental support required to ensure AIM-9X missile integration with threshold aircraft platforms.  <b>FY 2014 Accomplishments:</b> Continued Block II Operational Testing (OT-C1) and engineering efforts to integrate the Block II+ on F-15 aircraft.  <b>FY 2015 Plans:</b> Complete OT-C1 (Operational Test) and await final Initial OT&E (IOT&E) and Beyond LRIP reports. Begin Developmental Test (DT-D1) of v9.4 Block II software as well as improvements associated with the F-15 to utilize full capability of the Block II missile.  <b>FY 2016 Plans:</b> Continue DT-D1 (Developmental Test) and IT-D1 (Integrated Testing) of v9.4 Block II software including improvements associated with the F-15 suite 9 OFP to utilize full capability of the Block II missile.								-	4.258	4.186	
Accomplishments/Planned Programs Subtotals								12.376	29.739	43.360	
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
• MPAF: BA02: Line Item # M09HA1: Sidewinder (AIM-9X)	105.190	129.121	200.777	-	200.777	212.377	204.524	115.491	117.572	323.107	1,645.532
• MPAF: BA04: Line Item # 000999: Replen Spares, USAF	10.838	10.720	10.755	-	10.755	11.106	11.290	11.456	11.661	Continuing	Continuing

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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
• MPAF: BA04: Line Item # 000999: Initial Spares, USAF	1.650	1.717	0.604	-	0.604	2.447	2.254	1.834	1.868	17.266	34.294
• RDTE: BA07: PE 0207161N: Tactical AIM Missile	17.518	37.258	76.016	-	76.016	60.772	36.489	33.189	0.213	3.965	319.139
• WPN: BA02: Line Item # 2209: Sidewinder	96.689	68.178	96.427	-	96.427	103.644	107.375	75.623	76.045	682.974	1,485.017
Remarks											
Congressional language directed the program to report as a missile procurement (3020, BP20), starting in FY2002, and not as a missile modification (3020, BP21).											
E. Acquisition Strategy											
In June 2011, the Milestone Decision Authority (MDA) established the AIM-9X Block II missile program for entry at Milestone C and LRIP. The 2366 A/B certification and Acquisition Program Baseline for AIM-9X Block II was signed 23 Dec 2011 and the Block I program was completed. The LRIP-1 (Lot 11) contract was awarded in Sep 2011, LRIP-2 (Lot 12) was awarded in Dec 2011, LRIP-3 (Lot 13) was awarded August 2013, and LRIP-4 (Lot 14) was awarded in June 2014. Full Rate Production (FRP) decision is planned for FY 2015.											
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 0207161F / Tactical AIM Missiles				Project (Number/Name) 674132 / AIM-9 Product Improvement					
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
RMS Software/OFP Upgrade	SS/CPFF	RMS : Tucson, AZ	25.435	10.815	Mar 2014	12.391	Aug 2015	27.566	Mar 2016	-		27.566	61.420	137.627	137.627
Munitions Improvement Study (RG)	SS/CPFF	RMS : Tucson, AZ	0.000	1.174	Mar 2014	2.170	Jun 2015	3.000	Mar 2016	-		3.000	12.947	19.291	19.291
Munitions Improvement Study (USG)	MIPR	NAWC WD : China Lake, CA	1.903	-		2.170	Mar 2015	3.148	Mar 2016	-		3.148	11.923	19.144	19.144
Aircraft Integration	SS/CPFF	Boeing : St. Louis, MO	0.000	-		8.200	Jun 2015	4.900	Jun 2016	-		4.900	1.600	14.700	14.700
RMS P3I Contract	Various	Various : ,	9.381	-		-		-		-		-	-	9.381	9.381
Subtotal			36.719	11.989		24.931		38.614		-		38.614	87.890	200.143	200.143
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
DT&E/OT&E for P3I	MIPR	Various : Various,	14.967	-		1.558	Mar 2015	1.586	Mar 2016	-		1.586	4.930	23.041	23.041
DT&E/OT&E for F-15	MIPR	Various : Various,	0.000	-		2.700	Apr 2015	2.600	Apr 2016	-		2.600	-	5.300	5.300
Subtotal			14.967	-		4.258		4.186		-		4.186	4.930	28.341	28.341
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
PMA	MIPR	PMA-259 : Patuxent River, MD	3.228	0.387	Feb 2014	0.550	Mar 2015	0.560	Mar 2016	-		0.560	2.345	7.070	7.070

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</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 0207161F / <i>Tactical AIM Missiles</i>				<b>Project (Number/Name)</b> 674132 / <i>AIM-9 Product Improvement</i>					
<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 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>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			3.228	0.387		0.550		0.560		-		0.560	2.345	7.070	7.070
			<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>			54.914	12.376		29.739		43.360		-		43.360	95.165	235.554	235.554
<b>Remarks</b>															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force																Date: February 2015												
Appropriation/Budget Activity 3600 / 7								R-1 Program Element (Number/Name) PE 0207161F / Tactical AIM Missiles								Project (Number/Name) 674132 / AIM-9 Product Improvement												
	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
T&E Milestones: Block II Development Test: v9.3 Operational Test (OT-C1)																												
T&E Milestones: Block II Development Test: v9.4 Development Test (DT-D1)																												
T&E Milestones: Block II Development Test: v9.4 Integrated Development/Operational Test (IT-D1)																												
T&E Milestones: Block II Development Test v9.4 Operational Test (OT-D1)																												
Production: Block II Contract Award: Low Rate Inital Production (LRIP 4)																												
Production: Block II Contract Award: Full Rate Production (FRP 1)																												
Production: Block II Contract Award: Full Rate Production (FRP 2)																												
Production: Block II Contract Award: Full Rate Production (FRP 3)																												
Production: Block II Contract Award: Full Rate Production (FRP 4)																												
Production: Block II Contract Award: Full Rate Production (FRP 5)																												
Production: Deliveries: Low Rate Initial Production Lot 12 / LRIP 2																												
Production: Deliveries: Low Rate Initial Production Lot 13 / LRIP 3																												
Production: Deliveries: Low Rate Initial Production Lot 14 / LRIP 4																												
Production: Deliveries: Full Rate Production Lot 15 / FRP 1																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force																							Date: February 2015														
Appropriation/Budget Activity 3600 / 7										R-1 Program Element (Number/Name) PE 0207161F / Tactical AIM Missiles								Project (Number/Name) 674132 / AIM-9 Product Improvement																			
										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
Production: Deliveries: Full Rate Production Lot 16 / FRP 2																																					
Production: Deliveries: Full Rate Production Lot 17 / FRP 3																																					
Production: Deliveries: Full Rate Production Lot 18 / FRP 4																																					



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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 0207161F / <i>Tactical AIM Missiles</i>	<b>Project (Number/Name)</b> 674132 / <i>AIM-9 Product Improvement</i>	

**Schedule Details**

<b>Events</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
T&E Milestones: Block II Development Test: v9.3 Operational Test (OT-C1)	1	2014	2	2015
T&E Milestones: Block II Development Test: v9.4 Development Test (DT-D1)	1	2015	2	2017
T&E Milestones: Block II Development Test: v9.4 Integrated Development/Operational Test (IT-D1)	2	2017	1	2018
T&E Milestones: Block II Development Test v9.4 Operational Test (OT-D1)	1	2018	1	2019
Production: Block II Contract Award: Low Rate Initial Production (LRIP 4)	3	2014	3	2014
Production: Block II Contract Award: Full Rate Production (FRP 1)	4	2015	4	2015
Production: Block II Contract Award: Full Rate Production (FRP 2)	2	2016	2	2016
Production: Block II Contract Award: Full Rate Production (FRP 3)	2	2017	2	2017
Production: Block II Contract Award: Full Rate Production (FRP 4)	2	2018	2	2018
Production: Block II Contract Award: Full Rate Production (FRP 5)	2	2019	2	2019
Production: Deliveries: Low Rate Initial Production Lot 12 / LRIP 2	1	2014	4	2014
Production: Deliveries: Low Rate Initial Production Lot 13 / LRIP 3	4	2014	4	2015
Production: Deliveries: Low Rate Initial Production Lot 14 / LRIP 4	4	2015	4	2016
Production: Deliveries: Full Rate Production Lot 15 / FRP 1	4	2016	4	2017
Production: Deliveries: Full Rate Production Lot 16 / FRP 2	4	2017	4	2018
Production: Deliveries: Full Rate Production Lot 17 / FRP 3	4	2018	4	2019
Production: Deliveries: Full Rate Production Lot 18 / FRP 4	4	2019	4	2020