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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0207161F / <i>Tactical AIM Missiles</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	286.786	33.365	41.958	34.932	0.000	34.932	16.146	16.478	17.074	17.412	67.931	532.082
674132: <i>AIM-9 Product Improvement</i>	286.786	33.365	41.958	34.932	0.000	34.932	16.146	16.478	17.074	17.412	67.931	532.082
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Program MDAP/MAIS Code: 442

A. Mission Description and Budget Item Justification

The AIM-9X Block II Sidewinder (AIM-9X Blk II) continues the evolution of the AIM-9 series of missiles. This missile program delivers a launch and leave, air combat munition that uses passive Infrared (IR) energy to acquire and track enemy air targets and complements the radar guided Advanced Medium Range Air-to-Air Missile (AMRAAM). The missile provides fighter aircrew with the first shot, first kill opportunities that are essential for survival during air combat maneuvering in the visual arena. The AIM-9X delivers these opportunities with unmatched offensive and defensive capabilities against inner boundary threats, even when IR countermeasures are employed.

The AIM-9X also supports air superiority in the Beyond Visual Range air-to-air battle. Anti-tamper features have been incorporated to protect improvements inherent in this design. The AIM-9X Block II missile provides the Joint Force with fighter aircraft lethality and survivability necessary to counter threats identified in the National Defense Strategy.

AIM-9X is a Post Milestone C, Acquisition Category IC joint service program led by the Department of the Navy. The Block II program has completed independent operational testing and was found to be operationally effective and suitable. The program achieved Initial Operational Capability in March 2015 and received Full Rate Production decision in August 2015.

This budget line item continues technical refresh hardware and software and develops advanced capabilities to meet requirements of the Capability Production Document against evolving threat aircraft countermeasures.

This program element leverages Digital acquisition tenets of open, agile and digital. This may include providing funds to prime contractors; program office contract support; facility, security and IT upgrades; common component development with other weapon systems to reduce redundant costs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, or 0606398F. In FY 2024, \$0.00 were expended for civilian pay expenses in this program element, and in FY 2025, \$0.00 are forecasted for civilian pay expenses in this program element.

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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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	34.536	41.958	34.871	0.000	34.871
Current President's Budget	33.365	41.958	34.932	0.000	34.932
Total Adjustments	-1.171	0.000	0.061	0.000	0.061
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-1.171	0.000			
• Other Adjustments	0.000	0.000	0.061	0.000	0.061

Change Summary Explanation

In FY 2023 funding request was reduced by \$1.171 million for SIBR.
 In FY 2025 funding request was increased by \$0.061 million for inflation.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Title: AIM- 9X Product Development	31.565	40.158	27.432
Description: Continuation of Primary Hardware Development/Pre-Planned Product Improvement (technical refresh) efforts for the AIM-9X weapon system. This includes systems engineering and program management, as well as support required to ensure AIM-9X missile integration with US military aircraft platforms. This also includes efforts to redesign Block II missile components to mitigate obsolescence, ensure producibility and increase reliability. It will incorporate anti-tamper and cyber security technology improvements, and address hardware and software improvements to facilitate follow-on capability. In addition, the program will evaluate and begin risk reduction efforts that will address hardware and software improvements to facilitate follow-on capability and mitigate obsolescence.			
FY 2024 Plans: Continue software development and test efforts including OFS v9.5X, OFS v10.4X, and OFS v10.5X for performance improvements against increasingly challenging threat platforms. Continue SIP IV Hardware development of an advanced sensor and upgraded electronics, and OFS v11.5X software development to accompany hardware updates.			
FY 2025 Plans:			

UNCLASSIFIED

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Continue software development and test efforts on OFS v10.5X. Complete OFS v9.5X and OFS v10.4X software releases. Continue SIP IV Hardware development of an advanced sensor and upgraded electronics, and OFS v11.5X to accompany hardware updates. FY 2024 to FY 2025 Increase/Decrease Statement: Funding decrease in FY 2025 aligns with completion of OFS v9.5X and OFS v10.5X software release and with progression of SIP IV hardware and OFS v11.5X development.			
Title: AIM-9X, Test and Evaluation Description: Test and Evaluation (T&E) and associated governmental support required to ensure the AIM-9X missile integration with US Air Force aircraft platforms. Developmental and Operational testing of OFS. FY 2024 Plans: Execute and plan joint testing efforts for DT and IT flight test of OFS v9.5X and OFS v10.4X. FY 2025 Plans: Execute and plan joint testing efforts for DT, IT, and OT of OFS v10.4X, OFS v10.5X, and OFS v11.5X. FY 2024 to FY 2025 Increase/Decrease Statement: Funding increase to execute joint testing efforts on OFS v10.5X and OFS v11.5X.	1.800	1.800	7.500
Accomplishments/Planned Programs Subtotals	33.365	41.958	34.932

D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• MPAF 02 Line Item M09HAI: <i>Sidewinder (AIM-9X)</i>	111.855	95.643	106.871	-	106.871	127.617	129.813	132.580	135.208	918.593	1,758.180
• MPAF 04 Line Item 000999: <i>Replen Spares, USAF</i>	4.641	6.420	6.583	-	6.583	6.659	6.774	6.918	7.055	45.394	90.444
• MPAF 04 Line Item 000999 <i>(2)...: Inital Spares, USAF</i>	3.546	2.023	2.075	-	2.075	2.098	2.134	4.166	4.342	29.925	50.309
• RDTE 07 PE 0207161N: <i>Tactical AIM Missile</i>	29.236	31.353	34.862	-	34.862	16.114	16.444	17.039	17.377	61.764	224.189
• WPN Line Item 2209: <i>Sidewinder</i>	62.288	78.165	85.994	-	85.994	107.945	109.701	113.452	115.835	1,442.481	2,115.861

UNCLASSIFIED

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D. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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Remarks

Navy RDT&E and WPN Line Items reflect FY25 data.

E. Acquisition Strategy

Milestone C decision for LRIP was held June 24, 2011. The Block II program received USN Initial Operational Capability (IOC) in March 2015 and FRP Approval in August 2015. The Air Force achieved IOC in September 2016. In February 2019, the Acquisition Program Baseline (APB) for SAF was revised to increase total missile procurements and extend missile procurements through 2035. The program awarded FRP-8 in March 2022, and FRP-9 awarded in December 2022.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207161F / <i>Tactical AIM Missiles</i>	Project (Number/Name) 674132 / <i>AIM-9 Product Improvement</i>
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Software/OFP Upgrade/Hdw Development	SS/CPFF	RMD : Tucson, AZ	218.907	29.491	Oct 2022	37.634	Oct 2023	24.608	Oct 2024	-		24.608	109.031	419.671	325.836
Flight Termination System	MIPR	NAWC WD : China Lake, CA	4.934	-		-		-		-		-	0.000	4.934	10.578
Munitions Improvement Study (USG)	MIPR	NAWC WD : China Lake, CA	12.443	-		-		-		-		-	0.000	12.443	-
Systems Engineering (USG)	MIPR	NAWC WD : China Lake, CA	8.412	1.600	Feb 2023	2.050	Feb 2024	2.050	Feb 2025	-		2.050	13.861	27.973	-
Aircraft Integration	SS/CPFF	Boeing : St. Louis, MO	1.238	0.100	May 2023	0.100	May 2024	0.100	May 2025	-		0.100	0.400	1.938	2.624
Subtotal			245.934	31.191		39.784		26.758		-		26.758	123.292	466.959	N/A

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
DT&E/OT&E	Various	Various : Eglin, FL	29.737	1.500	Jan 2023	1.500	Jan 2024	7.500	Jan 2025	-		7.500	20.372	60.609	-
IT/OT Support F-15	SS/CPAF	RMD : Tuscon, AZ	0.900	0.300	May 2023	0.300	May 2024	0.300	May 2025	-		0.300	1.200	3.000	3.370
Subtotal			30.637	1.800		1.800		7.800		-		7.800	21.572	63.609	N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
PMA	Various	Eglin AFB : Eglin, FL	10.215	0.374	Jan 2023	0.374	Jan 2024	0.374	Jan 2025	-		0.374	7.161	18.498	7.285
Subtotal			10.215	0.374		0.374		0.374		-		0.374	7.161	18.498	N/A

			Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			286.786	33.365	41.958	34.932	-	34.932	152.025	549.066	N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207161F / <i>Tactical AIM Missiles</i>	Project (Number/Name) 674132 / <i>AIM-9 Product Improvement</i>
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	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
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<u>Remarks</u>									
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UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207161F / <i>Tactical AIM Missiles</i>	Project (Number/Name) 674132 / <i>AIM-9 Product Improvement</i>
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FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

AIM-9X Block II Tech Refresh (SIP III)	
SIP III Hardware (IMU, Dome, Processor)	
SIP III Hardware ECP	
OFS v9.5 Development	
OFS v9.5 Release	
OFS v10.4 (Rehost) Development	
OFS v10.4 Release	
OFS v10.5 Development	
OFS v10.5 Release	
AIM-9X Block II Tech Refresh (SIP IV)	
SIP IV Hardware (Sensor, Electronics Unit)	
SIP IV Hardware ECP	
OFS v11.5 Development	
OFS v11.5 Release	
OFS v11.6 Development	
OFS v11.6 Release	

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207161F / <i>Tactical AIM Missiles</i>	Project (Number/Name) 674132 / <i>AIM-9 Product Improvement</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>AIM-9X Block II Tech Refresh (SIP III)</i>				
SIP III Hardware (IMU, Dome, Processor)	1	2023	3	2023
SIP III Hardware ECP	4	2023	4	2023
OFS v9.5 Development	1	2023	4	2024
OFS v9.5 Release	2	2025	2	2025
OFS v10.4 (Rehost) Development	1	2023	2	2025
OFS v10.4 Release	2	2025	2	2025
OFS v10.5 Development	1	2023	3	2026
OFS v10.5 Release	1	2027	1	2027
<i>AIM-9X Block II Tech Refresh (SIP IV)</i>				
SIP IV Hardware (Sensor, Electronics Unit)	1	2023	4	2026
SIP IV Hardware ECP	4	2026	4	2026
OFS v11.5 Development	1	2023	4	2027
OFS v11.5 Release	4	2027	4	2027
OFS v11.6 Development	1	2026	4	2029
OFS v11.6 Release	4	2029	4	2029