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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207163N: <i>AMRAAM</i>
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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	2.588	2.913	2.857	-	2.857	2.774	2.823	2.894	2.975	24.500	44.324
0981: <i>AMRAAM</i>	2.588	2.913	2.857	-	2.857	2.774	2.823	2.894	2.975	24.500	44.324

A. Mission Description and Budget Item Justification

This joint Navy/Air Force program is structured in response to the Joint Service Operational Requirement and Mission Element Need Statement to develop an air superiority air-to-air missile with significant improvements in operational utility and combat effectiveness. This program supports the integration of the Advanced Medium Range Air-to-Air Missile (AMRAAM) into Navy aircraft with analysis of Navy unique applications, aircraft missile integration tasks, product improvement efforts including missile software upgrade development and procurement of hardware to support Navy test and evaluation tasks.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	2.633	2.913	2.942	-	2.942
Current President's Budget	2.588	2.913	2.857	-	2.857
Total Adjustments	-0.045	-	-0.085	-	-0.085
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.032	-			
• Program Adjustments	-	-	-0.091	-	-0.091
• Rate/Misc Adjustments	-	-	0.006	-	0.006
• Congressional General Reductions Adjustments	-0.013	-	-	-	-

Change Summary Explanation

Technical: Not Applicable

Schedule: The AIM-120D completed an FCA in Sep 09 and the SDD contract was closed. The program entered the DT/OT phase of flight test in 2010. Two successful shots were conducted but several anomalies were discovered during this period. These anomalies were categorized as Build-in-test (BIT) failures, GPS satellite acquisition, Active Electronically Scanned Array (AESA) interference, and missile lockups. Software updates have since mitigated the GPS satellite acquisition, AESA, and BIT issues. Additional software improvements introduced in FY11 have reduced the frequency of missile lockups; and further

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<p>improvements are being flight-tested in early-FY12. In Aug 11, the third DT/OT shot was successfully conducted; and the program plans to enter dedicated OT in the 3rd quarter of FY12.</p>		

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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
0981: AMRAAM	2.588	2.913	2.857	-	2.857	2.774	2.823	2.894	2.975	24.500	44.324
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
This joint Navy/Air Force program is structured in response to the Joint Service Operational Requirement and Mission Element Need Statement to develop an air superiority air-to-air missile with significant improvements in operational utility and combat effectiveness. This program supports the integration of the AMRAAM into Navy aircraft with analysis of Navy unique applications, aircraft missile integration tasks, product improvement efforts including missile software upgrade development and procurement of hardware to support Navy test and evaluation tasks.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: Continue aircraft integration Articles: Description: Continue Aircraft integration activities and test and evaluation for Navy unique requirements. FY 2011 Accomplishments: Continued aircraft integration activities and test and evaluation for Navy unique requirements. FY 2012 Plans: Continue aircraft integration activities and test and evaluation for Navy unique requirements. FY 2013 Plans: Continue aircraft integration activities and test and evaluation for Navy unique requirements.								0.860	0.822	0.850	
								0	0	0	
Title: Continue to identify potential improvements Articles: Description: Continue engineering support of AMRAAM, including investigation and analysis of technologies that offer potential improvements in AMRAAM lethality/performance and compatibility with related weapons systems. FY 2011 Accomplishments: Continued engineering support of AMRAAM, including investigation and analysis of technologies that offer potential improvements in AMRAAM lethality/performance and compatibility with related weapons systems. Conduct Operational Flight Profile (OFP) efforts. FY 2012 Plans:								0.400	0.404	0.402	
								0	0	0	

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2011	FY 2012	FY 2013
Continue engineering support of AMRAAM, including investigation and analysis of technologies that offer potential improvements in AMRAAM lethality/performance and compatibility with related weapons systems. Conduct OFP efforts.											
FY 2013 Plans: Continue engineering support of AMRAAM, including investigation and analysis of technologies that offer potential improvements in AMRAAM lethality/performance and compatibility with related weapons systems. Conduct OFP efforts.											
Title: Continue System Improvement Program (SIP) efforts									1.328	1.687	1.605
Articles:									0	0	0
Description: Continue system engineering and test activities in AMRAAM Phase 4 program which includes aircraft integration/ aircraft OFP efforts and Phase 4 test/equipment tasks. Continue system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements.											
FY 2011 Accomplishments: Continued system engineering and test activities in AMRAAM Phase 4 program which includes aircraft integration/aircraft OFP efforts and Phase 4 test/equipment tasks. Continue system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements.											
FY 2012 Plans: Continue system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements.											
FY 2013 Plans: Continue system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements.											
Accomplishments/Planned Programs Subtotals									2.588	2.913	2.857
C. 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
• WPN/ 220600: AMRAAM	144.729	105.119	102.683	0.000	102.683	169.561	173.851	187.240	189.247	2,191.983	4,984.211
• MPAF/3479: AMRAAM	346.430	202.176	229.637	0.000	229.637	340.015	356.796	381.742	380.686	2,800.498	12,404.980
• RDTE,AF/673777: AMRAAM	60.834	77.830	87.041	0.000	87.041	88.849	80.901	41.251	35.888	220.400	1,162.857

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D. Acquisition Strategy AMRAAM production procurements will continue across the FYDP with periodic pre-planned product improvements and Value Engineering Change Proposals. The Air Dominance Division, previously the 328th Armanent Systems Group, will revisit instituting a Long Term Pricing Agreement upon Raytheon's ability to consistently achieve monthly deliveries of 30 - 35 AIM-120Ds.		
E. Performance Metrics The AIM-120 AMRAAM program is meeting cost, schedule, performance, funding and life cycle sustainment in accordance with the Acquisition Program Baseline. Contractor is meeting the production schedule.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207163N: AMRAAM				PROJECT 0981: AMRAAM			

Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Development (EGLIN)	SS/CPAF	RAYTHEON COMPANY:Tucson AZ	43.911	1.014	Jan 2012	0.725	Jan 2013	-		0.725	8.345	53.995	53.995
Award Fees (EGLIN)	SS/CPAF	Various:Various	6.253	0.179	Jan 2012	0.128	Jan 2013	-		0.128	1.475	8.035	8.035
Primary Hdw Development (DAHLGREN)	WR	NSWC DAHLGREN D C XDM1:Dahlgren VA	0.117	0.026	Nov 2011	0.026	Nov 2012	-		0.026	0.334	0.503	
Primary Hdw Development (NAWCAD)	WR	NAWCAD:Patuxent River MD	0.990	0.207	Nov 2011	0.467	Nov 2012	-		0.467	5.578	7.242	
Primary Hdw Development (NAWCWD)	WR	NAWCWD:China Lake CA	0.716	0.086	Nov 2011	0.089	Dec 2012	-		0.089	1.110	2.001	
Prior Years Hardware Dev	Various	Various:Various	22.670	-		-		-		-	0.000	22.670	
Subtotal			74.657	1.512		1.435		-		1.435	16.842	94.446	

Remarks

Remarks: Percentage of award fees actually awarded in past award fee periods is 15%

Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support (NSMA)	WR	NAVY SYST MGT ACT:Arlington VA	3.047	0.204	Mar 2012	0.201	Mar 2013	-		0.201	2.595	6.047	
Studies & Analyses - JHU/APL	SS/FFP	NAVSEASYSKOM:Washington DC	1.260	0.200	May 2012	0.201	May 2013	-		0.201	2.618	4.279	4.279
Prior Years Dev/Acft Integ	Various	Various:Various	17.420	-		-		-		-	0.000	17.420	
Subtotal			21.727	0.404		0.402		-		0.402	5.213	27.746	

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Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval (NAWCWD)	WR	NAWCWD:China Lake CA	7.992	0.822	Nov 2011	0.850	Nov 2012	-		0.850	11.944	21.608	
Subtotal			7.992	0.822		0.850		-		0.850	11.944	21.608	

Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	MIPR	PMA-259:Eglin AFB FL	2.769	0.175	Oct 2011	0.170	Oct 2012	-		0.170	1.968	5.082	
Prior Years Management	Various	Various:Various	4.002	-		-		-		-	0.000	4.002	
Subtotal			6.771	0.175		0.170		-		0.170	1.968	9.084	

			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			111.147	2.913		2.857		-		2.857	35.967	152.884	

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AMRAAM				
Pre-Planned Product Improvement (P3I) Phase 4: Phase 4 SIP/SWUP: Phase 4 SIP/SWUP Start (P3I Follow-On)	1	2011	4	2017
Pre-Planned Product Improvement (P3I) Phase 4: System OT: F/A-18E/F Operational Test	3	2012	4	2013
Pre-Planned Product Improvement (P3I) Phase 4: IOC: IOC F/A18 E/F (Threshold)	1	2014	1	2014
Pre-Planned Product Improvement (P3I) Phase 4: IOC: IOC F/A18 C/D	2	2014	2	2014
Production Milestones: Contract Awards: Production Lot 25 Contract Award	4	2011	4	2011
Production Milestones: Contract Awards: Production Lot 26 Contract Award	2	2012	2	2012
Production Milestones: Contract Awards: Production Lot 27 Contract Award	2	2013	2	2013
Production Milestones: Contract Awards: Production Lot 28 Contract Award	2	2014	2	2014
Production Milestones: Contract Awards: Production Lot 29 Contract Award	2	2015	2	2015
Production Milestones: Contract Awards: Production Lot 30 Contract Award	2	2016	2	2016
Production Milestones: Contract Awards: Production Lot 31 Contract Award	2	2017	2	2017
Production Deliveries: Production Deliveries - Lot 23	3	2011	3	2012
Production Deliveries: Production Deliveries - Lot 24	3	2012	2	2013
Production Deliveries: Production Deliveries - Lot 25	2	2013	1	2014
Production Deliveries: Production Deliveries - Lot 26	2	2014	2	2015
Production Deliveries: Production Deliveries - Lot 27	2	2015	2	2016
Production Deliveries: Production Deliveries - Lot 28	2	2016	2	2017
Production Deliveries: Production Deliveries - Lot 29	2	2017	4	2017