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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Navy	<b>DATE:</b> April 2013
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0207163N: <i>AMRAAM</i>
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COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO <sup>##</sup>	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	111.147	2.803	2.857	2.613	-	2.613	2.818	2.886	2.979	3.028	20.627	151.758
0981: <i>AMRAAM</i>	111.147	2.803	2.857	2.613	-	2.613	2.818	2.886	2.979	3.028	20.627	151.758

**MDAP/MAIS Code(s):** 185

<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

**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.

This program is funded under Operational Systems Development because it includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate funding in the current or subsequent fiscal year.

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2012</u></b>	<b><u>FY 2013</u></b>	<b><u>FY 2014 Base</u></b>	<b><u>FY 2014 OCO</u></b>	<b><u>FY 2014 Total</u></b>
Previous President's Budget	2.913	2.857	2.774	-	2.774
Current President's Budget	2.803	2.857	2.613	-	2.613
Total Adjustments	-0.110	0.000	-0.161	-	-0.161
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.053	0.000			
• SBIR/STTR Transfer	-0.057	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.161	-	-0.161

**Change Summary Explanation**

Schedule: Additional software improvements introduced in FY12 have reduced the frequency of weapon fails. The production deliveries for Lots 22-25 were restructured due to issues with rocket motor performance.

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0207163N: AMRAAM				PROJECT 0981: AMRAAM			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO <sup>##</sup>	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0981: AMRAAM	111.147	2.803	2.857	2.613	-	2.613	2.818	2.886	2.979	3.028	20.627	151.758
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
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 2012	FY 2013	FY 2014	
Title: Aircraft integration  Articles:  Description: Aircraft integration activities and test and evaluation for Navy unique requirements.  FY 2012 Accomplishments: Continued aircraft integration activities and test and evaluation for Navy unique requirements. Includes additional flight test requirements for AIM-120D Operational Test.  FY 2013 Plans: Continue aircraft integration activities and test and evaluation for Navy unique requirements.  FY 2014 Plans: Continue aircraft integration activities and test and evaluation for Navy unique requirements.									1.611	0.850	0.870	
									0	0	0	
Title: Identify potential improvements  Articles:  Description: 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 2012 Accomplishments:									0.386	0.402	0.426	
									0	0	0	

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207163N: AMRAAM				PROJECT 0981: AMRAAM			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014
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. Conducted Operational Flight Profile efforts. <b>FY 2013 Plans:</b> 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 Operational Flight Profile efforts. <b>FY 2014 Plans:</b> 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 Operational Flight Profile efforts.											
<b>Title:</b> System Improvement Program (SIP) efforts <b>Articles:</b> <b>Description:</b> System engineering and test activities in AMRAAM Phase 4 program which includes aircraft integration/aircraft Operational Flight Profile efforts and Phase 4 test/equipment tasks. System engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements. <b>FY 2012 Accomplishments:</b> Continued system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements. Reduced requirement to meet higher priority flight test requirements for AIM-120D Operational Test. <b>FY 2013 Plans:</b> Continue system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements. <b>FY 2014 Plans:</b> Continue system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements.									0.806 0	1.605 0	1.317 0
Accomplishments/Planned Programs Subtotals									2.803	2.857	2.613
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• WPN/ 220600: AMRAAM	105.119	102.683	95.413		95.413	128.354	161.351	186.397	212.666	2,008.772	4,865.282
• MPAF/3479: AMRAAM	202.176	229.637	340.015		340.015	355.021	373.810	373.772	380.500	2,431.222	12,402.053

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207163N: AMRAAM				PROJECT 0981: AMRAAM			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTE,AF/673777: AMRAAM	75.282	87.041	84.172		84.172	83.222	42.469	35.305	35.940	183.902	1,158.030
Remarks											
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 2014 Navy												DATE: April 2013			
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		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	0.000		0.776	Jan 2013	0.546	Jan 2014	-		0.546	7.755	52.988	52.988
Award Fees (EGLIN)	SS/CPAF	Various:Various	6.253	0.000		0.128	Jan 2013	0.096	Jan 2014	-		0.096	1.368	7.845	7.845
Primary Hdw Development (DAHLGREN)	WR	NSWC DAHLGREN D C XDM1:Dahlgren VA	0.117	0.000		0.026	Nov 2012	0.026	Nov 2013	-		0.026	0.310	0.479	
Primary Hdw Development (NAWCAD)	WR	NAWCAD:Patuxent River MD	0.990	0.531	Nov 2011	0.467	Nov 2012	0.469	Nov 2013	-		0.469	5.113	7.570	
Primary Hdw Development (NAWCWD)	WR	NAWCWD:China Lake CA	0.716	0.100	Nov 2011	0.089	Dec 2012	0.088	Dec 2013	-		0.088	1.008	2.001	
Prior Years Dev Cost no longer funded in the FYDP	Various	Various:Various	22.670	0.000		0.000		0.000		-		0.000	0.000	22.670	
Subtotal			74.657	0.631		1.486		1.225		0.000		1.225	15.554	93.553	
Remarks															
Remarks: Percentage of award fees actually awarded in past award fee periods is 15%															
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	0.186	Mar 2012	0.201	Mar 2013	0.212	Jan 2014	-		0.212	2.383	6.029	
Studies & Analyses - JHU/APL	SS/FFP	NAVSEASYSOM:Washington DC	1.260	0.200	May 2012	0.201	May 2013	0.214	May 2014	-		0.214	2.404	4.279	4.279
Prior Years Support costs no longer funded in the FYDP	Various	Various:Various	17.420	0.000		0.000		0.000		-		0.000	0.000	17.420	
Subtotal			21.727	0.386		0.402		0.426		0.000		0.426	4.787	27.728	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE				PROJECT				
1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development							PE 0207163N: AMRAAM				0981: AMRAAM				
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	1.611	Nov 2011	0.850	Nov 2012	0.870	Nov 2013	-		0.870	10.207	21.530	
<b>Subtotal</b>			7.992	1.611		0.850		0.870		0.000		0.870	10.207	21.530	
<b>Management Services (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	0.119	Oct 2012	0.092	Oct 2013	-		0.092	1.810	4.965	
Prior Years Mgmt Costs no longer funded in the FYDP	Various	Various:Various	4.002	0.000		0.000		0.000		-		0.000	0.000	4.002	
<b>Subtotal</b>			6.771	0.175		0.119		0.092		0.000		0.092	1.810	8.967	
			All Prior Years	<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			111.147	2.803		2.857		2.613		0.000		2.613	32.358	151.778	
<b>Remarks</b>															

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**Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy**

**DATE:** April 2013

**APPROPRIATION/BUDGET ACTIVITY**

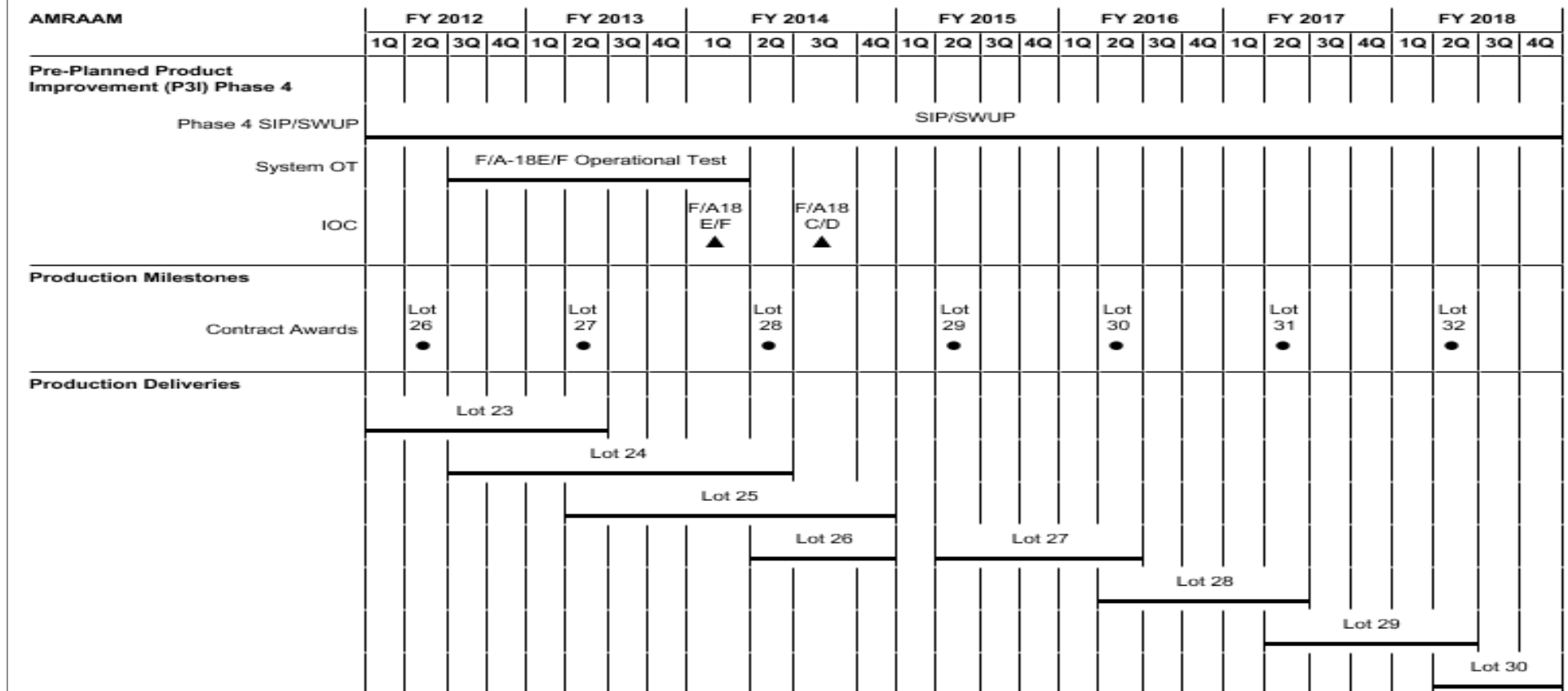
1319: *Research, Development, Test & Evaluation, Navy*  
BA 7: *Operational Systems Development*

**R-1 ITEM NOMENCLATURE**

PE 0207163N: AMRAAM

**PROJECT**

0981: AMRAAM



2014PB - 0207163N - 0981

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2014 Navy			<b>DATE:</b> April 2013
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0207163N: <i>AMRAAM</i>	<b>PROJECT</b> 0981: <i>AMRAAM</i>	

**Schedule Details**

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>AMRAAM</b>				
Pre-Planned Product Improvement (P3I) Phase 4: Phase 4 SIP/SWUP: Phase 4 SIP/SWUP Start (P3I Follow-On)	1	2012	4	2018
Pre-Planned Product Improvement (P3I) Phase 4: System OT: F/A-18E/F Operational Test	3	2012	1	2014
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	3	2014	3	2014
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 Milestones: Contract Awards: Production Lot 32 Contract Award	2	2018	2	2018
Production Deliveries: Production Deliveries - Lot 23	1	2012	2	2013
Production Deliveries: Production Deliveries - Lot 24	3	2012	2	2014
Production Deliveries: Production Deliveries - Lot 25	2	2013	4	2014
Production Deliveries: Production Deliveries - Lot 26	2	2014	4	2014
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	2	2018
Production Deliveries: Production Deliveries - Lot 30	2	2018	4	2018