

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY / BA-7</b>					R-1 ITEM NOMENCLATURE 0207163N AMRAAM			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	8.714	9.001	3.584	6.726	2.659	3.543	3.318	3.401
0981 AMRAAM	8.714	9.001	3.584	6.726	2.659	3.543	3.318	3.401

**(U) 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, pre-planned product improvement (P3I) efforts including missile software upgrade development and procurement of hardware to support Navy test and evaluation tasks.

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EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>		PROGRAM ELEMENT NUMBER AND NAME 0207163N AMRAAM			PROJECT NUMBER AND NAME 0981 AMRAAM			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	8.714	9.001	3.584	6.726	2.659	3.543	3.318	3.401
RDT&E Articles Qty								
<p><b>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b></p> <p>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, pre-planned product improvement (P3I) efforts including missile software upgrade development and procurement of hardware to support Navy test and evaluation tasks.</p>								

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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0207163N AMRAAM	PROJECT NUMBER AND NAME 0981 AMRAAM		
<b>(U) B. Accomplishments/Planned Program</b>				
	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost	6.435	5.935	1.496	1.520
RDT&E Articles Quantity				
<p>Continue system engineering activities in AMRAAM P3I Phase 4 program which include conducting Proof of Manufacturing (POM) testing of Phase 4 system hardware, developing, coding, and testing P3I Phase 4 software, and integrating hardware and software into missile test articles for use in ground and initial captive carriage flight testing. In addition engineering efforts in FY2006 to include GPS/Advanced Data Link/Kinematics developments. Continue systems engineering/aircraft integration activities in AMRAAM P3I program with emphasis on Navy unique compatibility requirements and aircraft integration/compatibility requirements. Efforts in consonance with USAF funding of \$30.068 in FY04, \$33.266 in FY05, \$35.155 in FY06 and \$36.131 in FY07.</p>				
	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost	2.279	1.666	0.925	0.783
RDT&E Articles Quantity				
<p>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.</p>				
	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost	0.000	1.400	1.163	4.423
RDT&E Articles Quantity				
<p>Continue aircraft integration activities and test and evaluation for Navy unique requirements.</p>				

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Exhibit R-2a, RDTEN Project Justification

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EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>																																																																							
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<b>C. PROGRAM CHANGE SUMMARY:</b>  <table style="width: 100%; border-collapse: collapse;"><thead><tr><th style="text-align: left; width: 40%;">Funding:</th><th style="text-align: right; width: 15%;">FY 04</th><th style="text-align: right; width: 15%;">FY 05</th><th style="text-align: right; width: 15%;">FY 06</th><th style="text-align: right; width: 15%;">FY 07</th></tr></thead><tbody><tr><td>Previous President's Budget:</td><td style="text-align: right;">8.973</td><td style="text-align: right;">9.085</td><td style="text-align: right;">3.556</td><td style="text-align: right;">6.602</td></tr><tr><td>Current President's Budget:</td><td style="text-align: right;">8.714</td><td style="text-align: right;">9.001</td><td style="text-align: right;">3.584</td><td style="text-align: right;">6.726</td></tr><tr><td>Total Adjustments</td><td style="text-align: right; border-top: 1px solid black;">-0.259</td><td style="text-align: right; border-top: 1px solid black;">-0.084</td><td style="text-align: right; border-top: 1px solid black;">0.028</td><td style="text-align: right; border-top: 1px solid black;">0.124</td></tr><tr><td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td></tr><tr><td>    Congressional program reductions</td><td></td><td></td><td></td><td></td></tr><tr><td>    Congressional undistributed reductions</td><td></td><td style="text-align: right;">-0.082</td><td></td><td></td></tr><tr><td>    Congressional rescissions</td><td></td><td></td><td></td><td></td></tr><tr><td>    SBIR/STTR Transfer</td><td style="text-align: right;">-0.221</td><td></td><td></td><td></td></tr><tr><td>    Other reductions</td><td></td><td style="text-align: right;">-0.002</td><td style="text-align: right;">-0.005</td><td style="text-align: right;">-0.006</td></tr><tr><td>    Economic Assumptions</td><td></td><td></td><td style="text-align: right;">0.033</td><td style="text-align: right;">0.130</td></tr><tr><td>    Reprogrammings</td><td style="text-align: right;">-0.038</td><td></td><td></td><td></td></tr><tr><td>    Congressional increases</td><td></td><td></td><td></td><td></td></tr><tr><td>    Subtotal</td><td style="text-align: right; border-top: 1px solid black;">-0.259</td><td style="text-align: right; border-top: 1px solid black;">-0.084</td><td style="text-align: right; border-top: 1px solid black;">0.028</td><td style="text-align: right; border-top: 1px solid black;">0.124</td></tr></tbody></table> <p>Schedule:</p> <p style="margin-left: 20px;">The AIM120C F/A-18 E/F IOC date moved to account for delayed start/completion of independent operational testing by COMOPTEVFOR/AFOTEC due to delays in securing OSD/DOT&amp;E approval of Test &amp; Evaluation Master Plan OT sections and test hardware. OT&amp;E completion is a requirement for IOC recommendation by COMOPTEVFOR/N780.</p> <p style="margin-left: 20px;">The Free Flight DT testing has slipped one quarter due to delays in missile test hardware deliveries.</p> <p style="margin-left: 20px;">The SDD P3I Follow-on program has been renamed to the System Improvement Program (SIP) to reflect the spiral development nature of the improvements.</p> <p>Technical:</p> <p style="margin-left: 20px;">Not Applicable.</p>					Funding:	FY 04	FY 05	FY 06	FY 07	Previous President's Budget:	8.973	9.085	3.556	6.602	Current President's Budget:	8.714	9.001	3.584	6.726	Total Adjustments	-0.259	-0.084	0.028	0.124	Summary of Adjustments					Congressional program reductions					Congressional undistributed reductions		-0.082			Congressional rescissions					SBIR/STTR Transfer	-0.221				Other reductions		-0.002	-0.005	-0.006	Economic Assumptions			0.033	0.130	Reprogrammings	-0.038				Congressional increases					Subtotal	-0.259	-0.084	0.028	0.124
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EXHIBIT R-2a, RDT&E Project Justification			DATE:	February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-7	0207163N AMRAAM	0981 AMRAAM		

**(U) D. OTHER PROGRAM FUNDING SUMMARY:**

<u>Line Item No. &amp; Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
WPN/P1#6 \$	36.920	28.803	81.507	98.764	86.465	85.017	86.876	88.984	1,370.874	3,145.395
Quantity	42	46	101	150	140	150	150	150	1,864	4,461
<u>Related RDT&amp;E</u>										
PE 0207130F F-15										
PE 0204126N F/A-18 Squadrons										
PE 0207163F AMRAAM P3I										
PE 0207133F F-16										
PE 0604239F F-22										
PE 0207134F F-15E										

**(U) E. ACQUISITION STRATEGY:**

With the December 1997 merger of Raytheon and Hughes into the Raytheon Systems Company, the government implemented a new acquisition strategy labeled AMRAAM Vision 2000. The Vision 2000 strategy capitalizes on a Long Term Pricing Agreement (LTPA) agreement between Raytheon and the government under the auspices of the Department of Justice which supported the Raytheon/Hughes merger and a shift in government business practices toward a more "commercial" business arrangement. The lot 16 procurement contract award again includes an overarching price control strategy with Total System Performance Responsibility (TSPR) with the prime contractor, Raytheon Defense Systems Segment in Tucson, Arizona. The purchase includes missiles, warranties, spares, missile performance tracking, and reliability tests. Raytheon assumes responsibility for all specifications below missile performance.

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Exhibit R-2a, RDTEEN Project Justification  
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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0207163N AMRAAM			0981 AMRAAM						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPAF	Raytheon, Tucson AZ	35.373	4.067	01/05	1.093	01/06	0.514	01/07	2.708	43.755	43.755
Primary Hardware Development	WX	NAWC-AD Patuxent River MD		1.057	11/04	0.210	11/05	0.915	11/06	0.230	2.412	
Primary Hardware Development	WX	NAWC-WD Pt Mugu CA		0.072	11/04						0.072	
Primary Hardware Development	WX	NSWC Dahlgren VA		0.021	11/04						0.021	
Award Fees	SS/CPAF	Raytheon, Tucson AZ	4.740	0.718	11/04	0.193	11/05	0.091	11/06	0.478	6.220	6.220
Prior Years Development/Acft Integ	Various	Various	19.874								19.874	
Subtotal Product Development			59.987	5.935		1.496		1.520		3.416	72.354	
Remarks: Percentage of award fees actually awarded in past award fee periods is 15%.												
Development Support	SS/FFP	JHU/APL Laurel MD		0.210	01/05	0.200	01/06	0.150	01/07	0.870	1.430	1.430
Development Support	RX	NSMA VA		0.926	12/04	0.350	12/05	0.250	12/06	0.950	2.476	2.476
Development Support	WX	NAWC-WD Pt Mugu CA	11.366								11.366	
Subtotal Support			11.366	1.136		0.550		0.400		1.820	15.272	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>			PROGRAM ELEMENT 0207163N AMRAAM			PROJECT NUMBER AND NAME 0981 AMRAAM						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WX	NAWC WD Pt Mugu CA	1.306	1.400	11/04	1.163	11/05	4.423	11/06	6.141	14.433	
Subtotal T&E			1.306	1.400		1.163		4.423		6.141	14.433	
Remarks:												
Program Management Support	PID/PR	NAWC AD Pax River MD	3.544	0.330	10/04	0.181	10/05	0.183	10/06	0.744	4.982	
Travel	MIPR	PMA-259 Eglin AFB FL	1.409	0.200	10/04	0.194	10/05	0.200	10/06	0.800	2.803	
Subtotal Management			4.953	0.530		0.375		0.383		1.544	7.785	
Remarks:												
Total Cost			77.612	9.001		3.584		6.726		12.921	109.844	
Remarks:												

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Exhibit R-3, Project Cost Analysis  
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EXHIBIT R4, Schedule Profile																								DATE:											
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-7												0207163N AMRAAM												0981 AMRAAM											
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011						
	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	1	2	3	4			
Pre-Planned Product Improvement (P3I) Phase 3																																			
EMD Completion																																			
Test Readiness Reviews																																			
Development Test Flight Test																																			
IOC C7																																			
Phase 3 SWUP																																			
Pre-Planned Product Improvement (P3I) Phase 4																																			
SDD																																			
SYSTEM DT/OT Start																																			
IOC																																			
Phase 4 SIP/SWUP																																			
Production Milestones																																			
Contract awards																																			
Deliveries																																			

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 Exhibit R-4, Schedule Profile  
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Exhibit R-4a, Schedule Detail						DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RD&amp;BA-7</b>		PROGRAM ELEMENT 0207163N AMRAAM				PROJECT NUMBER AND NAME 0981 AMRAAM		
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
EMD Completion Phase 3	2Q							
First P3I Phase 3 Delivery	1Q							
Test Readiness Reviews	1Q-2Q							
Development Test/Flight Test	1Q-3Q							
F/A-18 IOC of AIM120C7			1Q					
F-22 IOC of AIM120C7			1Q					
CLAWS IOC of AIM120C7			3Q					
Phase 3 Software Upgrade (SWUP)	4Q							
SDD Phase 4	2Q-4Q	1Q-4Q	1Q-4Q	1Q-2Q				
Phase 4 SIP/SWUP Start (P3I Follow-On)			4Q					
P3I Follow-on Efforts				1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
System DT (Captive) Start		3Q						
System DT (Free flight) Start			2Q					
System OT (F/A-18 E/F) Start				1Q				
System OT (F/A-18 E/F) Complete					1Q			
IOC F/A18 E/F					1Q			
IOC F/A18 C/D						1Q		
Production Lot 18 Contract Award	2Q							
Production Lot 19 Contract Award		1Q						
Production Lot 20 Contract Award			2Q					
Production Lot 21 Contract Award				2Q				
Production Lot 22 Contract Award					2Q			
Production Lot 23 Contract Award						2Q		
Production Lot 24 Contract Award							2Q	
Production Lot 25 Contract Award								2Q

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