#### CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE:	
,							Februa	ry 2003
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMEN	ICLATURE		-
RESEARCH DEVELOPMENT TEST & EVALUAT	ION, NAVY /	BA-7			0207163N AMRAA	M		
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost	9.692	7.928	9.297	7.972	2.736	4.691	1.952	0.973
E0981 AMRAAM	9.692	7.928	9.297	7.972	2.736	4.691	1.952	0.973

### (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, simulation capability development, aircraft missile integration tasks, pre-planned product improvement (P3I) efforts, and procurement of hardware to support Navy test and evaluation tasks.

#### **CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification					•	•	DATE:	•		
							Februa	ry 2003		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	ENT NUMBER ANI	D NAME		PROJECT NUMBE	ER AND NAME				
RDT&E, N / BA-7	E, N / BA-7 0207163N AMRAAM E0981 AMRAAM									
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		
Project Cost	9.692	7.928	9.297	7.972	2.736	4.691	1.952	0.973		
RDT&E Articles Qty										

### (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, simulation capability development aircraft missile integration tasks, pre-planned product improvement (P3I) efforts, and procurement of hardware to support Navy test and evaluation tasks.

#### CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY F	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME
<b>RDT&amp;E, N / BA-7</b>	0207163N AMRAAM	E0981 AMRAAM	

## (U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	7.117	5.307	6.674	5.297
RDT&E Articles Quantity				

Continued system engineering activities in AMRAAM P3I Phase 3 EMD program which include conducting proof of Manufacturing (POM) testing of Phase 3 system hardware, developing, coding, and testing P3I Phase 3 software, and integrating hardware and software into missile test articles for use in ground and initial captive carriage flight testing. Initiate follow-on P3I engineering efforts in FY2004 to include GPS/Advanced Data Link/Kinematics improvements to meet remaining P3I ORD requirements. Continue systems engineering/aircraft integration activities in AMRAAM P3I program with emphasis on Navy unique compatibility requirements and aircraft integration/compatibility requirements. Above in consonance with USAF funding of \$51.221 in FY02, \$35.810 in FY03, \$31.273 in FY04, and \$32.875 in FY05.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	2.575	2.071	2.273	2.325
RDT&E Articles Quantity				

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.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.550	0.350	0.350
RDT&E Articles Quantity				

Continue aircraft integration activities and test and evaluation for Navy unique requirements.

R-1 SHOPPING LIST - Item No.

191

### CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification					DATE:	
						February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	AND NAME		PROJECT NUMBER A	ND NAME	
RDT&E, N / BA-7	0207163N AMRAAM			E0981 AMRAAM		
(U) C. PROGRAM CHANGE SUMMARY:						
(U) Funding:	FY 2002	FY 2003	FY 2004	FY 2005		
Previous President's Budget:	10.700	8.124	9.527	8.156		
Current BES/ President's Budget	9.692	7.928	9.297			
Total Adjustments	-1.008	-0.196	-0.230	-0.184		
Summary of Adjustments						
Congressional program reductions						
Congressional undistributed reduction	8	-0.047				
Congressional rescissions	-0.023					
SBIR/STTR Transfer						
Economic Assumtions	-0.028	-0.149	-0.221	-0.177		
Reprogrammings	-0.957					
Other Navy/OSD Adjustments			-0.009	-0.007		
Congressional increases						
Subtotal	-1.008	-0.196	-0.230	-0.184		
(U) Schedule:						
Not applicable.						
Not applicable.						
(U) Technical:						
Not applicable.						
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#### CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Just	tification							DATE:							
									Febru	ary 2003					
APPROPRIATION/BUDGET ACTIVITY		PROGRAM E	LEMENT NUM	BER AND NAM	ΛE	PROJECT NU	IMBER AND N	AME							
RDT&E, N / BA-7	7	0207163N AMRAAM						0981 AMRAAM							
(U) D. OTHER PROGRAM FUNDIN	IG SUMMARY:														
(e) Di e ilizit i ite e ilitili i e ilizi									То	Total					
Line Item No. & Name	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Complete	Cost					
WPN/P1#6 \$	36.538	49.962	37.648	36.115	82.876	114.148	87.417	86.957	88.308	1,715.002					
Quantity	55	100	53	46	101	150	140	150	87	2419					
Related RDT&E															
PE 0207130F F-15															
PE 0204126N F/A-18 Squadro	ns														
PE 0207163F AMRAAM P3I															
PE 0207133F F-16															
PE 0604239F F-22															

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

PE 0207134F F-15E

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 multi-year hardware pricing 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. Also included in the Lot 16 contract are pre-priced options for Lots 17 thru 21 (FY2003 thru FY2007).

### CLASSIFICATION:

								DATE:				
Exhibit R-3 Cost Analysis (pa	ige 1)									February 200	03	
APPROPRIATION/BUDGET ACTI		PROGRAM E	LEMENT			PROJECT NU	JMBER AND N	NAME		-		
RDT&E, N / BA-7		0207163N AM	1RAAM			E0981 AMRA	AM					
Cost Categories		- C	Total		FY 03		FY 04		FY 05			
	Method	Activity &	PY s	FY 03	Award	FY 04	Award	FY 05	Award	Cost to	Total	Target Value
	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract
Primary Hardware Development	SS/CPAF	Raytheon, Tucson, AZ	26.082	4.414	11/02	5.579	11/03	4.406	11/04	1.514	41.995	41.995
Primary Hardware Development	WX	NAWC-AD Patuxent River M	D	0.021	11/02	0.020	11/03	0.021	11/04	0.000	0.062	
Primary Hardware Development	WX	NAWC-WD Pt Mugu CA		0.072	11/02	0.070	11/03	0.072	11/04	0.000	0.214	
Primary Hardware Development	WX	NSWC Dahlgren VA		0.021	11/02	0.021	11/03	0.021	11/04	0.000	0.063	
Award Fees	SS/CPAF	Raytheon, Tucson, AZ	3.095	0.779	11/02	0.984	11/03	0.777	11/04	0.267	5.902	5.902
Prior Years Development/Acft Integ	Various	Various	19.650								19.650	1
Subtotal Product Development			48.827	5.307	,	6.674	l.	5.297		1.781	67.886	i

Remarks: Prior year award fees were \$3.095 and are estimated to be approximately 15% of contract value for future years.

Development Support	SS/FFP	JHU/APL Laurel MD		0.378	01/03	0.384	01/04	0.390	01/05	0.750	1.902	1.902
Development Support	RX	NSMA VA		0.875	12/02	0.900	12/03	0.926	12/04	1.050	3.751	
Development Support	WX	NAWC-WD Pt Mugu CA	8.577	0.051	10/02	0.050	10/03	0.050	10/04	0.000	8.728	
Subtotal Support			8.577	1.304		1.334		1.366		1.800	14.381	

Remarks:

### **CLASSIFICATION:**

											DATE:				
Exhibit R-3 Cost Ana	alysis (pag	e 2)											February 200	)3	
APPROPRIATION/BUD	GET ACTIVI	TY	PROGRAM	ELEMEN					PROJECT NU	IMBER AND I	NAME		-		
RDT&E, N /	BA-7		0207163N						E0981 AMRA						
Cost Categories		Contract	Performing	Total			FY 03			FY 04		FY 05			
		Method	Activity &	PY s		FY 03	Award			Award	FY 05	Award	Cost to	Total	Target Value of Contract
Developmental Test & E	Sycluction	& Type WX	Location  NAWC WD Pt Mugu CA	Cost	0.956	Cost 0.10	Date	1/02	Cost 0.350	Date 11/03	Cost 0.350	Date 11/04	Complete 4.600		
Developmental Test & E		MIPR	Raytheon, Tucson, AZ		0.956	0.10				11/03	0.000		4.000	0.450	
Developmental Test & E	valuation	WIPK	Raytheon, Tucson, AZ			0.43	00 12	2/02	0.000		0.000			0.450	
											+				
											+				
0.14.4.4.70.5					0.050	0.5	-0		0.050		0.050		4.000	0.000	
Subtotal T&E		ļ	ļ.		0.956	0.5	50		0.350		0.350	1	4.600	6.806	
Program Management Sup	port	WX	NAWC WD Pax River MD		2.188	0.5	13 10	0/02	0.680	10/03	0.696	10/04	1.377	5.454	
Travel		MIPR	PMA-259 Eglin AFB FL		0.950	0.2	54 10	0/02	0.259	10/03	0.263	10/04	0.794	2.520	
Subtotal Management					3.138	0.7	67		0.939		0.959		2.171	7.974	
Remarks:															
Total Cost					61.498	7.9	28		9.297		7.972		10.352	97.047	
Remarks:				<b>1</b>			•		,			<u>,                                      </u>			

### CLASSIFICATION:

EXHIBIT R4, Schedule																									DATE		F	ebrua	ary 20	03		
APPROPRIATION/BUDGE RDT&E, N /	T ACTIV BA-7								PRO0 02071				IUMBE	R AND	NAMI	E						ECT N		R AN	ID NAN	1E						
Fiscal Year		20	002			20	03			20				200	05			200	06			20	07			20	008			200	09	
	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										First P	hase 3	delive	 у 																			
Test Readiness Reviews						$\triangle$	Δ																									
Development Test Flight Test	Start (	Captive	Flight		<b>A</b>	Launc	hes	<u> </u>																								
IOC C7												A-18					<u></u>		CLA													
Pre-Planned Product Improvement (P3I) Phase 4									٨										02.		٨											
EMD									Start								Δ				Compl					P3I F	ollow-c	n				
SYSTEM DT/OT Start													Captiv DT	e			Free F	light		OT St (E/F)	art 		OT Co (E/F)	mplete	Э			_				
Phase 4 SWUP																				Start								Compl	<i>/</i> \			
Production Milestones																								F/A	18 E/F				F/A18	C/D		
Contract awards		4	Lot 16			Z	Lot 17				Lot 18	3			Lot 19				Lot 20	)		<u> </u>	Lot 21				Lot 22				Lot 23	
Deliveries	24	55	12	8	16	16	23	0	4	16	18	21	24	24	26	18	12	14	15	14	12	12	12	16	24	24	27	18	36	37	39	37

### **CLASSIFICATION:**

Exhibit R-4a, Schedule Detail						DATE: February 2003			
									APPROPRIATION/BUDGET ACTIVITY
RDT&BA-7	0207163N AMRAAM				E0981 AMRAAM				
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
EMD Completion Phase 3		4th Qtr							
First P3I Phase 3 Delivery			1st Qtr						
Test Readiness Reviews		1st Qtr							
DevelopmentTest/Flight Test	3rd Qtr								
F/A-18 IOC of AIM120C7			3rd Qtr						
F-22 IOC of AIM120C7					1st Qtr				
CLAWS IOC of AIM120C7					3rd Qtr				
EMD Start Phase 4			1st Qtr						
EMD Completion Phase 4						1st Qtr			
Phase 4 SWUP Start					4th Qtr				
Phase 4 SWUP Complete							4th Qtr		
System DT (Captive) Start				1st Qtr					
System DT (Free flight) Start					1st Qtr				
System OT (F/A-18 E/F) Start					4th Qtr				
System OT (F/A-18 E/F) Complete						3rd Qtr			
IOC F/A18 E/F						4th Qtr			
IOC F/A18 C/D								1st Qtr	
P3I Follow-on Efforts						1st-4th Qtr	1st-4th Qtr	1st-4th Qtr	
Production Lot 16 Contract Award	3rd Qtr								
Production Lot 17 Contract Award		2nd Qtr							
Production Lot 18 Contract Award			2nd Qtr						
Production Lot 19 Contract Award				2nd Qtr					
Production Lot 20 Contract Award					2nd Qtr				
Production Lot 21 Contract Award						2nd Qtr			
Production Lot 22 Contract Award							2nd Qtr		
Production Lot 23 Contract Award								2nd Qtr	