

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT NAME AND NUMBER 0305149N/COBRA JUDY					PROJECT NUMBER AND NAME 4021/CJR System Engineering	
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011	FY2012	FY2013
Project Cost	119.527	134.815	132.679	87.430	58.225	32.995	1.700	1.687
RDT&E Articles Qty	0	0	0	0	0	0	0	0

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

A. (U) Mission Description

Cobra Judy Replacement is a program that has been transferred from the Air Force to the Navy, per an Office of the Secretary of Defense (OSD) Milestone A Acquisition Decision Memorandum dated 6 August 2002.

Cobra Judy funds will replace the current U.S. Naval Ship (USNS) Observation Island which has become unsustainable and due to leave service no later than 2012. This program will fund the development of a single ship-based radar suite for world wide technical data collection against ballistic missiles in flight. Prior funding provided instrumentation of quality radar data and imaging, detailing threat assessment of ballistic missile development, testing and range augmentation and monitored or verified specific aspects of United States treaties with other countries. To avoid vulnerabilities in our national security it is imperative we replace the current capability of Cobra Judy in a timely manner to prevent any potential gap in coverage. Prior studies have indicated that a ship-based radar replacement is the most timely and cost effective solution.

B. (U) PROGRAM CHANGE SUMMARY:

Funding:	FY 2006	FY 2007	FY 2008	FY2009
Previous President's Budget (PB 07 Controls):	117.749	135.372	138.266	89.766
Current Budget (PB 08 Controls)	119.527	134.815	132.679	87.430
Total Adjustments	1.778	-0.557	-5.587	-2.336

Summary of Adjustments

Congressional Action 1% Reduction	1.230	0.000	0.000	0.000
Misc. changes	0.548	-0.557	-1.587	-0.946
Programmatic adjustments	0.000	0.000	-4.000	-1.390
	1.778	-0.557	-5.587	-2.336

Schedule:

Technical:

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C. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</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>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u> Continuing	<u>Total Cost</u> Continuing
P.E. 0303901N										
* Details and funding profile for this Program Element are classified.										
 D. ACQUISITION STRATEGY:										
The acquisition strategy calls for leveraging ongoing Navy Ballistic Missile Defense (BMD) radar development, updating existing user interface/communications/data handling equipment designs from a similar operational unit, and purchasing and integrating the mission equipment aboard an appropriate merchant-class hull. System design will be accomplished using in-hand technologies and commercial standards to lower schedule risk and produce a product with the lowest possible life-cycle cost.										
 E. MAJOR PERFORMERS:										
<u>Mission Equipment:</u>										
Raytheon Company - Sudbury, Massachusetts										
Northrop Grumman (subcontractor) - Baltimore, Maryland										
 <u>Ship:</u>										
Bender Shipbuilding & Repair Co., Inc. - Mobile, AL										
Marinette Marine Corp. - Marinette, WI										
VT Halter Marine Inc. - Pascagoula, MS										

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT NAME AND NUMBER 0305149N/COBRA JUDY					PROJECT NUMBER AND NAME 4021/CJR System Engineering	
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011	FY2012	FY2013
Project Cost	119.527	134.815	132.679	87.430	58.225	32.995	1.700	1.687
RDT&E Articles Qty	0	0	0	0	0	0	0	0

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

A. (U) Mission Description

Cobra Judy Replacement is a program that has been transferred from the Air Force to the Navy, per an Office of the Secretary of Defense (OSD) Milestone A Acquisition Decision Memorandum dated 6 August 2002. Funding depicted herein represents approximately half of the total budget.

Cobra Judy funds will replace the current U.S. Naval Ship (USNS) Observation Island which has become unsustainable and due to leave service no later than 2012. This program will fund the development of a single ship-based radar suite for world wide technical data collection against ballistic missiles in flight. Prior funding provided instrumentation of quality radar data and imaging, detailing threat assessment of ballistic missile development, testing and range augmentation and monitored or verified specific aspects of United States treaties with other countries. To avoid vulnerabilities in our national security it is imperative we replace the current capability of Cobra Judy in a timely manner to prevent any potential gap in coverage. Prior studies have indicated that a ship-based radar replacement is the most timely and cost effective solution.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NAME AND NUMBER 0305149N/COBRA JUDY	PROJECT NUMBER AND NAME 4021/CJR System Engineering		
B. Accomplishments/Planned Program				
	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	88.504	99.578	85.857	55.19
RDT&E Articles Quantity	0	0	0	0
DESIGN AND RISK REDUCTION				
Accomplishments				
- Completed critical detailed designs for prime mission (X-band & S-band) radars				
- Completed preliminary design of the Mission Communications Suite (MCS)				
Planned:				
- Complete Pilot Build and Test (X-Band and S-Band Front Ends)				
- Continue Common BackEnd software development and array build and test.				
- Conduct Mission Equipment Production Readness Reviews				
	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	14.000	31.293	52.886	28.164
RDT&E Articles Quantity	0	0	0	0
SHIPBUILDING				
Accomplishments:				
- Awarded ship construction contract				
- Awarded ship concept and preliminary design contracts				
- Completed three ship preliminary designs in preparation for down-select to one ship construction contractor				
Planned:				
- Initiate ship detailed design and commence construction				
	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	13.453	1.707	2.083	1.799
RDT&E Articles Quantity	0	0	0	0
SYSTEM ENGINEERING				
Accomplishments:				
- Development of specifications / interface design documents and detailed test plans				
Planned:				
- Complete designs for non-prime mission equipment (C4I, data handling, classified mission equipment)				

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B. Accomplishments/Planned Program (Cont.)				
	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	1.195	0.307	0.410	0.410
RDT&E Articles Quantity	0	0	0	0
TEST & EVALUATION				
Planned:				
<ul style="list-style-type: none"> - Maintain Test and Evaluation master Plan (TEMP) - Develop and maintain detailed test and integration plans - Support Technical Interchange Meetings (TIMs) 				
	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	2.375	1.930	1.855	1.867
RDT&E Articles Quantity	0	0	0	0
PROGRAM MANAGEMENT SUPPORT				
Planned:				
<ul style="list-style-type: none"> - Program planning, assessment of technical alternatives, risk identification and mitigation. - Cost and schedule development and execution 				
Total Cost:	119.527	134.815	143.091	87.430

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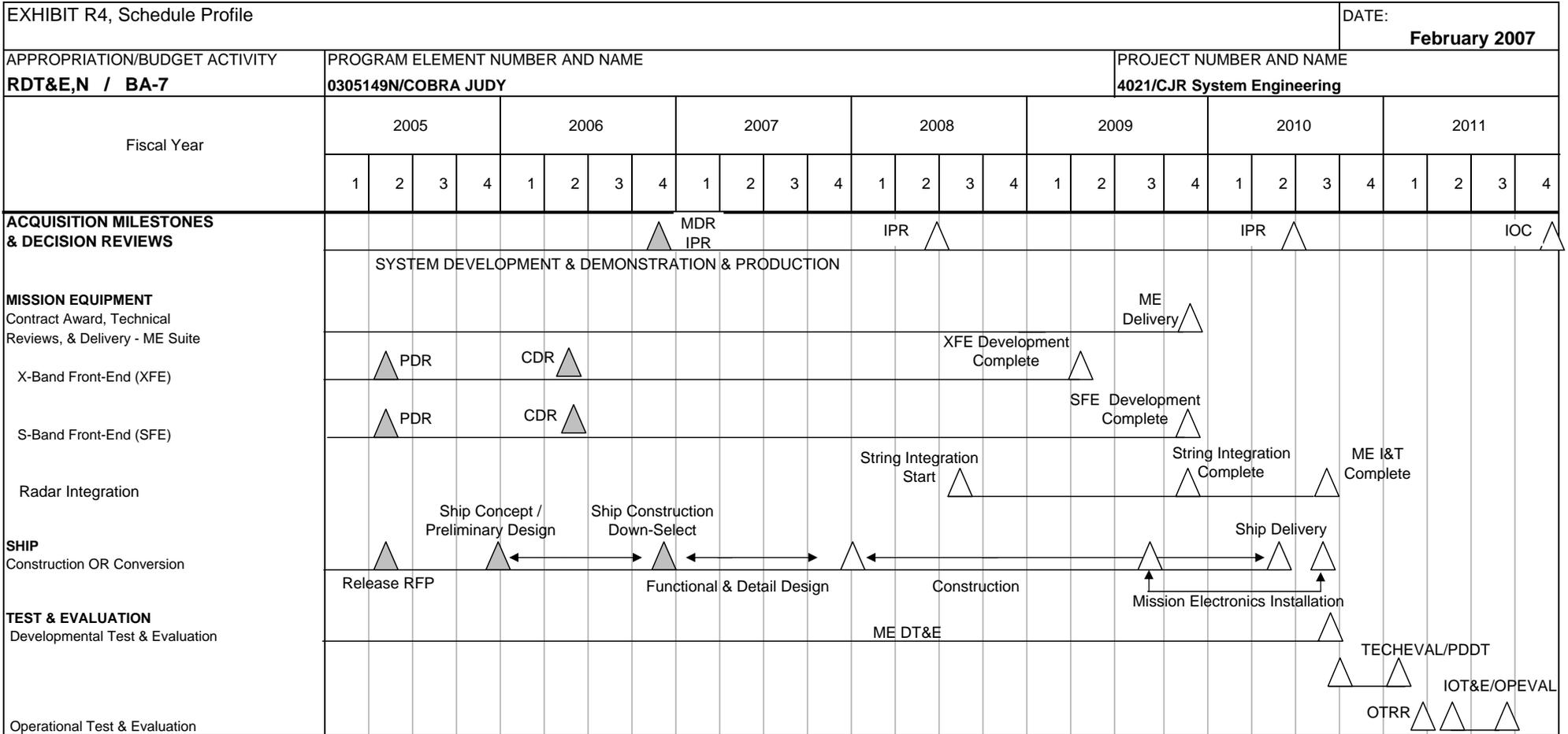
Exhibit R-3 Cost Analysis (page 1)												DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NAME AND NUMBER						PROJECT NUMBER AND NAME					
RDT&E, N / BA - 7			0305149N/COBRA JUDY						4021/CJR System Engineering					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Design and Risk Reduction	CPAF	Raytheon	138.025	92.833	12/03	92.425	12/03	92.215	12/03	55.135	12/03	Continuing	Continuing	TBD
	Various	PEO Ships	15.332	11.000	04/06	38.446	TBD	36.116	TBD	28.164	TBD	Continuing	Continuing	TBD
System Engineering	WX/RX	Various	3.709	0.155	02/06	1.707	TBD	2.083	TBD	1.804	TBD	Continuing	Continuing	TBD
	MIPR	Various	2.325	0.365	02/06									
	GSA	Various	1.691	0.000	N/A									
	CPAF	BAE	0.000	0.840	02/06									
	C NF	GTRI	1.495	0.238	02/06									
	CPFF	JHU/APL	4.524	0.610	03/06									
	MIPR	MIT/LL	2.844	1.425	02/06									
	WX	NRL	1.280	0.286	02/06									
	WX	NSWC CSS	2.942	0.000	N/A									
	WX	NSWC DD	7.461	1.080	02/06									
	WX	NSWC PHD	1.535	0.000	02/06									
	Various	PEO Ships	0.000	3.000	04/06									
	WX	SEG	1.195	0.000	N/A									
	WX/PD	SPAWAR	2.922	0.000	N/A									
Subtotal Product Development			187.280	111.832		132.578		130.414		85.103		Continuing	Continuing	TBD
Remarks:														
Test and Evaluation														
Test and Evaluation	CPAF/WX/RX	Various	0.000	0.040	02/06	0.307	TBD	0.410	TBD	0.410	TBD	Continuing	Continuing	TBD
	CPAF	Raytheon	0.400	0.800	12/03		12/03		12/03		12/03	Continuing	Continuing	TBD
		AFOTEC	0.185	0.025	02/06									
		COMOPTEVFOR	0.269	0.020	02/06									
		JITC	0.225	0.000	N/A									
	WX	NSWC DD	0.709	0.310	02/06									
		PMS 325	0.365	0.000	N/A									
		TSC	0.250	0.000	N/A									
Remarks:														

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Exhibit R-3 Cost Analysis (page 2)													DATE: February 2007		
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RDT&E, N / BA-7			0305149N/COBRA JUDY					4021/CJR System Engineering							
Test and Evaluation (Con'd)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation															
Operational Test & Evaluation															
Live Fire Test & Evaluation															
Test Assets															
Tooling															
GFE															
Award Fees															
Subtotal T&E			2.403	1.195		0.307		0.410		0.410		Continuing	Continuing	TBD	
Remarks:															
Contractor Engineering	WX/RX	Various	0.885												
	CPAF	BAE Systems	6.986	3.625	02/05										
	GSA	Computer Science Corp	3.155												
	GSA	Systems Planning & Analysis	1.900												
Program Management	CPAF	BAE Systems	8.476	2.375	02/05	1.880	TBD	1.805	TBD	1.867	TBD	Continuing	Continuing	TBD	
	CPFF	DTI	0.435												
Travel			0.170	0.500	11/05	0.050	TBD	0.050	TBD	0.050	TBD				
Subtotal Management			22.007	6.500		1.930		1.855		1.917		Continuing	Continuing	TBD	
Remarks:															
Total Cost			211.690	119.527		134.815		132.679		87.430		Continuing	Continuing	TBD	
Remarks:															

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* Not required for Budget Activities 1, 2, 3, and 6

LEGEND			
CDR	Critical Design Review	OPEVAL	Operational Evaluation
DT&E	Developmental Test and Evaluation	OTRR	Operational Test Readiness Review
IOC	Initial Operational Capability	PDR	Preliminary Design Review
IPR	Interim Progress Review	PDDT	Post Delivery Test & Trials
IOC	Initial Operational Capability	SDR	System Design Review
IOT&E	Initial Operational Test & Evaluation	TECHEVAL	Technical Evaluation
MS	Milestone		

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Exhibit R-4a, Schedule Detail							DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7				PROJECT NUMBER AND NAME 4021/CJR System Engineering				
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
ACQUISITION MILESTONES & DECISION REVIEWS								
Interim Progress Review (IPR)	4Q		2Q		2Q			
System Development & Demonstration & Production	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q			
Initial Operational Capability (IOC)						4Q		
MISSION EQUIPMENT								
Delivery				4Q				
X-Band Radar								
Preliminary Design Review (PDR)								
Critical Design Review (CDR)	2Q							
S-Band Radar								
Preliminary Design Review (PDR)								
Critical Design Review (CDR)	2Q							
Radar Integration								
String Integration Start			3Q					
String Integration Complete				4Q				
ME I&T Complete					3Q			
SHIP								
Release RFP								
Ship Concept/Preliminary Design	1Q-3Q							
Ship Construction Down Select	4Q							
Delivery					2Q			
TEST AND EVALUATION								
Mission Equipment Developmental Test & Evaluation (DT&E)	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q-3Q			
TECHEVAL / Post Delivery Test & Trials					3Q	1Q		
OTRR						1Q		
IOT&E/OPEVAL						2Q-3Q		