

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>							
<b>EXHIBIT R-2, RDT&amp;E BUDGET ITEM JUSTIFICATION</b>						<b>DATE</b> February 2008			
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 7</b>			<b>R-1 ITEM NOMENCLATURE</b> <b>0305149N/COBRA JUDY</b>						
COST (In Millions)			FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost			134.815	131.836	101.114	62.040	32.377	22.785	1.255
4021 / CJR System Engineering			134.815	131.836	101.114	62.040	32.377	22.785	1.255
<b>A. MISSION DESCRIPTION:</b>									
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>B. PROGRAM CHANGE SUMMARY:</b>									
Funding:			FY 2007	FY 2008	FY 2009				
FY 2008 President's Budget			134.815	132.679	87.430				
FY 2009 President's Budget			134.815	131.836	101.114				
Total			0.000	-0.843	13.684				
Undistributed/General Reductions			0.000	0.000	0.000				
Program Adjustment			0.000	0.000	13.684				
<b>C. OTHER PROGRAM FUNDING SUMMARY:</b>									
PE 0303901N (Details and funding profile are classified)			FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<b>D. ACQUISITION STRATEGY:</b>									
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.									

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<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>					DATE February 2008			
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 7</b>		<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0305149N/COBRA JUDY</b>				<b>PROJECT NUMBER AND NAME</b> <b>4021/CJR System Engineering</b>		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Project Cost	134.815	131.836	101.114	62.040	32.377	22.785	1.255	
RDT&E Articles Qty	0	0	0	0	0	0	0	
<b>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b>								
A. (U) Mission Description								
<p>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.</p> <p>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.</p>								

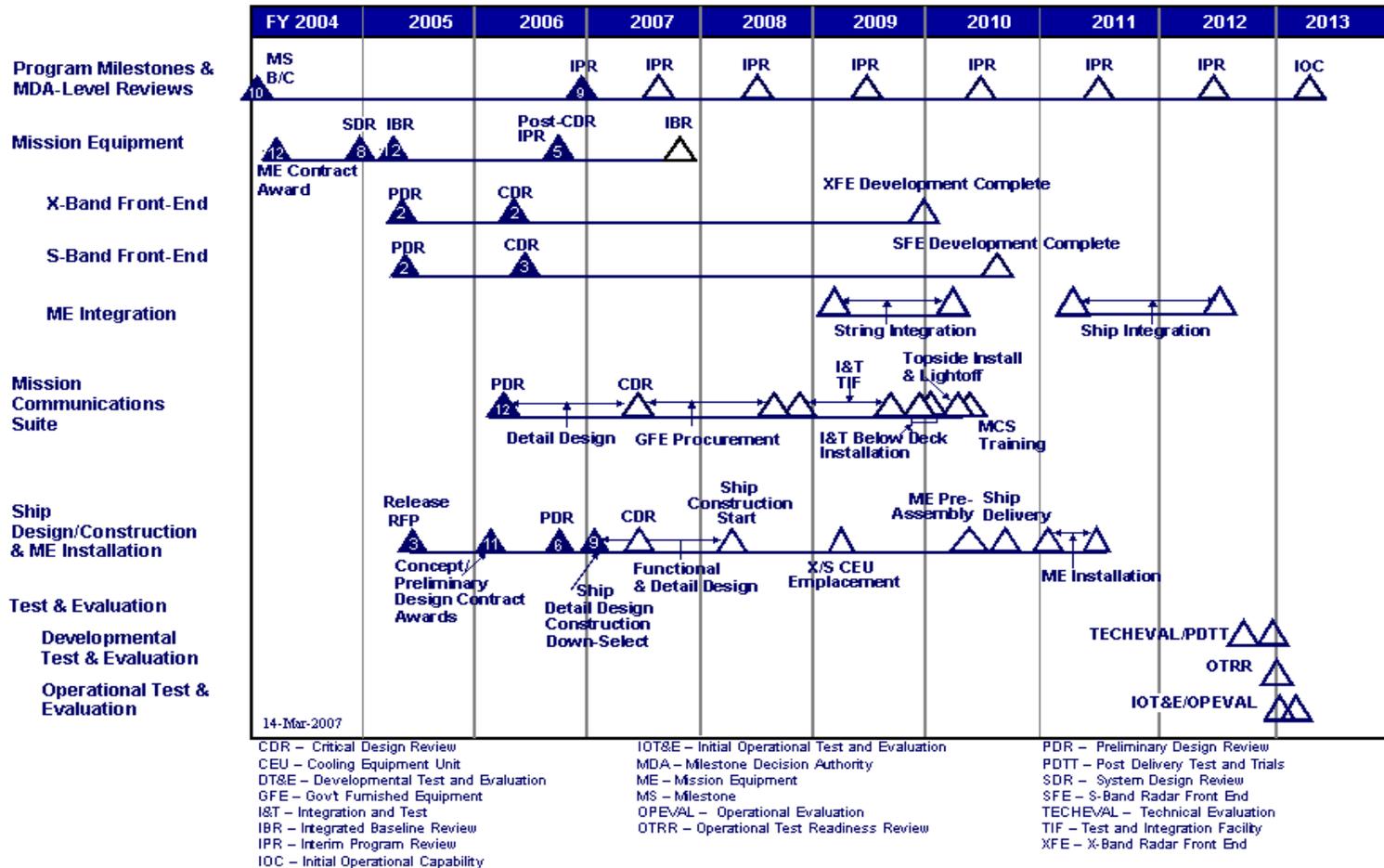
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<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY <b>RD TEN/BA 7</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0305149N/COBRA JUDY</b>	PROJECT NUMBER AND NAME <b>4021/CJR System Engineering</b>	
<b>B. ACCOMPLISHMENTS/PLANNED PROGRAM:</b>			
	FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>	99.321	84.036	69.467
RDT&E Articles Quantity	0	0	0
<b>DESIGN AND RISK REDUCTION</b>			
Accomplishments			
<ul style="list-style-type: none"> <li>- Completed critical detailed designs for prime mission (X-band &amp; S-band) radars</li> <li>- Completed critical detailed design of the Mission Communications Suite (MCS)</li> <li>- Complete Pilot Build and Test (X-Band and S-Band Front Ends)</li> </ul>			
Planned:			
<ul style="list-style-type: none"> <li>- Continue Common BackEnd software development and array build and test</li> <li>- Conduct Mission Equipment Production Readness Reviews</li> </ul>			
	FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>	31.293	43.700	27.245
RDT&E Articles Quantity	0	0	0
<b>SHIPBUILDING</b>			
Accomplishments:			
<ul style="list-style-type: none"> <li>- Awarded ship construction contract</li> <li>- Awarded ship concept and preliminary design contracts</li> <li>- Completed three ship preliminary designs in preparation for down-select to one ship construction contractor</li> <li>- Critical Detailed Design Review</li> </ul>			
Planned:			
-Commence Ship construction			
	FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>	2.042	2.536	1.730
RDT&E Articles Quantity	0	0	0
<b>SYSTEM ENGINEERING</b>			
Accomplishments:			

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<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION (CONTINUATION)</b>				DATE February 2008
APPROPRIATION/BUDGET ACTIVITY <b>RD TEN/BA 7</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0305149N/COBRA JUDY</b>	PROJECT NUMBER AND NAME <b>4021/CJR System Engineering</b>		
- Development of specifications / interface design documents and detailed test plans Planned: - Complete designs for non-prime mission equipment (C4I, data handling, classified mission equipment)				
		FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>		0.307	0.196	0.396
RDT&E Articles Quantity		0	0	0
TEST & EVALUATION Planned: - Maintain Test and Evaluation master Plan (TEMP) - Develop and maintain detailed test and integration plans - Support Technical Interchange Meetings (TIMs)				
		FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>		1.852	1.368	2.276
RDT&E Articles Quantity		0	0	0
PROGRAM MANAGEMENT SUPPORT Planned: '- Program planning, assessment of technical alternatives, risk identification and mitigation - Cost and schedule development and execution				

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EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE		
										February 2008		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 7		0305149N/COBRA JUDY					4021/CJR System Engineering					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
System Engineering	WR	Various	3.864	0.113	DEC-06	0.164	JAN-08	0.119	DEC-08	CONT	CONT	0.000
System Engineering	MIPR	Various	2.690	0.406	DEC-06	0.000		0.320	DEC-08	0.000	3.416	0.000
System Engineering	GSA	Various	1.691	0.000		0.000		0.000		0.000	1.691	0.000
System Engineering	CPAF	BAE	0.840	0.000		0.553	JAN-08	0.000		0.000	1.393	0.000
System Engineering	C NF	GTRI	1.733	0.125	DEC-06	0.259	JAN-08	0.121	DEC-08	0.000	2.238	0.000
System Engineering	CPFF	JHU/APL	5.134	0.154	DEC-06	0.202	JAN-08	0.149	DEC-08	0.000	5.639	0.000
System Engineering	MIPR	MIT/LL	4.269	0.000		0.144	JAN-08	0.000		0.000	4.413	0.000
System Engineering	WR	NRL	1.566	0.000		0.314	JAN-08	0.000		0.000	1.880	0.000
System Engineering	WR	NSWC CSS	2.942	0.000		0.000		0.000		0.000	2.942	0.000
System Engineering	WR	NSWC DD	8.541	1.244	DEC-06	0.900	JAN-08	1.021	DEC-08	0.000	11.706	0.000
System Engineering	WR	NSWC PHD	1.535	0.000		0.000		0.000		0.000	1.535	0.000
System Engineering	Various	PEO Ships	3.000	0.000		0.000		0.000		0.000	3.000	0.000
System Engineering	WR	SEG	1.195	0.000		0.000		0.000		0.000	1.195	0.000
Systems Engineering	WR	SPAWAR	2.922	0.000		0.000		0.000		0.000	2.922	0.000
<b>Subtotal Support Costs</b>			<b>41.922</b>	<b>2.042</b>		<b>2.536</b>		<b>1.730</b>		<b>CONT</b>	<b>CONT</b>	<b>0.000</b>
Remarks:												
Test and Evaluation	PAF/WR/R	Various	0.040	0.255	DEC-06	0.000		0.247	DEC-08	CONT	CONT	0.000
Test and Evaluation	CPAF	Raytheon	1.200	0.000		0.000		0.000		CONT	CONT	0.000
Test and Evaluation		AFOTEC	0.210	0.026	DEC-06	0.000		0.025	DEC-08	0.000	0.261	0.000
Test and Evaluation		COMOPTEVFOR	0.289	0.026	DEC-06	0.000		0.025	DEC-08	0.000	0.340	0.000
Test and Evaluation		JITC	0.225	0.000		0.000		0.000		0.000	0.225	0.000
Test and Evaluation	WR	NSWC DD	1.019	0.000		0.196	JAN-08	0.099	DEC-08	0.000	1.314	0.000
Test and Evaluation		PMS 325	0.365	0.000		0.000		0.000		0.000	0.365	0.000
Test and Evaluation		TSC	0.250	0.000		0.000		0.000		0.000	0.250	0.000
Development Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Operational Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Live Fire Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Test Assets			0.000	0.000		0.000		0.000		0.000	0.000	0.000

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EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE		
										February 2008		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 7		0305149N/COBRA JUDY					4021/CJR System Engineering					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Tooling			0.000	0.000		0.000		0.000		0.000	0.000	0.000
GFE			0.000	0.000		0.000		0.000		0.000	0.000	0.000
			0.000	0.000		0.000		0.000		0.000	0.000	0.000
<b>Subtotal Test and Evaluation</b>			<b>3.598</b>	<b>0.307</b>		<b>0.196</b>		<b>0.396</b>		<b>CONT</b>	<b>CONT</b>	<b>0.000</b>
Remarks:												
Contractor Engineering	WR/REQN	Various	0.885	0.802	DEC-06	0.000		1.260	DEC-08	0.000	2.947	0.000
	CPAF	BAE Systems	10.611	0.000		0.000		0.000		0.000	10.611	0.000
	GSA	Computer Science Corp	3.155	0.000		0.000		0.000		0.000	3.155	0.000
	GSA	Systems Planning & Analysis	1.900	0.000		0.000		0.000		0.000	1.900	0.000
Program Management	CPAF	BAE Systems	10.851	1.024	DEC-06	1.368	DEC-07	0.991	DEC-08	0.000	14.234	0.000
	CPFF	DTI	0.435	0.000		0.000		0.000		0.000	0.435	0.000
Travel			0.670	0.026	DEC-06	0.000		0.025	DEC-08		0.721	0.000
<b>Subtotal Management Services</b>			<b>28.507</b>	<b>1.852</b>		<b>1.368</b>		<b>2.276</b>		<b>0.000</b>	<b>34.003</b>	<b>0.000</b>
Remarks:												
Design and Risk Reduction	CPAF/IF	Raytheon	230.858	93.466	DEC-06	84.036	DEC-07	66.666	DEC-08	0.000	475.026	0.000
Design and Risk Reduction	Various	PEO Ships	26.332	31.293	SEP-06	43.700	SEP-06	27.245	SEP-06	0.000	128.570	0.000
Design and Risk Reduction	Various	SPAWAR	0.000	5.855	VAR	0.000		2.801	VAR	0.000	8.656	0.000
<b>Subtotal Product Development</b>			<b>257.190</b>	<b>130.614</b>		<b>127.736</b>		<b>96.712</b>		<b>0.000</b>	<b>612.252</b>	<b>0.000</b>
Remarks:												
<b>Total Cost</b>			<b>331.217</b>	<b>134.815</b>		<b>131.836</b>		<b>101.114</b>		<b>CONT</b>	<b>CONT</b>	<b>0.000</b>

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EXHIBIT R-4, SCHEDULE PROFILE		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 7	PROGRAM ELEMENT NUMBER AND NAME 0305149N/COBRA JUDY	PROJECT NUMBER AND NAME 4021/CJR System Engineering



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<b>EXHIBIT R-4a, SCHEDULE DETAIL</b>						DATE February 2008		
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 7</b>		<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0305149N/COBRA JUDY</b>			<b>PROJECT NUMBER AND NAME</b> <b>4021/CJR System Engineering</b>			
Schedule Profile		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Initial Operational Capability (IOC)								1Q
Mission Equipment IBR		4Q						
X- Band Radar CDR								
X-Band Development Complete					1Q			
S-Band Radar CDR								
S- Band Radar Development Complete					3Q			
Mission Equipment String Integration Complete					2Q			
ME Ship Integration Complete							2Q	
Mission Communications Suite PDR								
Mission Communications Suite CDR		3Q						
Mission Communications Suite Lightoff					2Q			
Ship PDR								
Ship CDR		2Q						
Ship Construction Start			2Q					
Ship Delivery					3Q			
TECHEVAL/ Post Delivery Test & Trials							2Q-3Q	
OTRR							4Q	
IOT&E/OPEVAL								1Q