

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>					
<b>EXHIBIT R-2, RDT&amp;E BUDGET ITEM JUSTIFICATION</b>						<b>DATE</b> May 2009	
<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 2008	FY 2009	FY 2010	
Total PE Cost				131.836	100.814	62.061	
4021 / CJR System Engineering				131.836	100.814	62.061	
<b>A. MISSION DESCRIPTION:</b>							
Cobra Judy funds will replace the current U.S. Naval Ship (USNS) Observation Island which has become unsustainable. 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 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 2008	FY 2009	FY 2010	
FY09 President's Budget				131.836	101.114	62.040	
FY10 President's Budget				131.836	100.814	62.061	
Total Adjustments				0.000	-0.300	0.021	
(U) Summary of Adjustments							
Congressional Rescissions				0.000	0.000	0.000	
Congressional Adjustments				0.000	-0.274	0.000	
SBIR/STTR/FTT Assessment				0.000	0.000	0.000	
Program Adjustments				0.000	-0.026	0.000	
Rate/Misc Adjustments				0.000	0.000	0.021	
Total				0.000	-0.300	0.021	
<b>C. OTHER PROGRAM FUNDING SUMMARY:</b>							

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<b>EXHIBIT R-2, RDT&amp;E BUDGET ITEM JUSTIFICATION (CONTINUATION)</b>		<b>DATE</b> May 2009
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 7</b>	<b>R-1 ITEM NOMENCLATURE</b> <b>0305149N/COBRA JUDY</b>	
<p><b>D. ACQUISITION STRATEGY:</b></p> <p>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.</p>		

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<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>					<b>DATE</b> May 2009		
<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>		
<b>COST (In Millions)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>				
Project Cost	131.836	100.814	62.061				
RDT&E Articles Qty	0	0	0				
<b>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b>							
<p>Cobra Judy funds will replace the current U.S. Naval Ship (USNS) Observation Island which has become unsustainable. 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>							

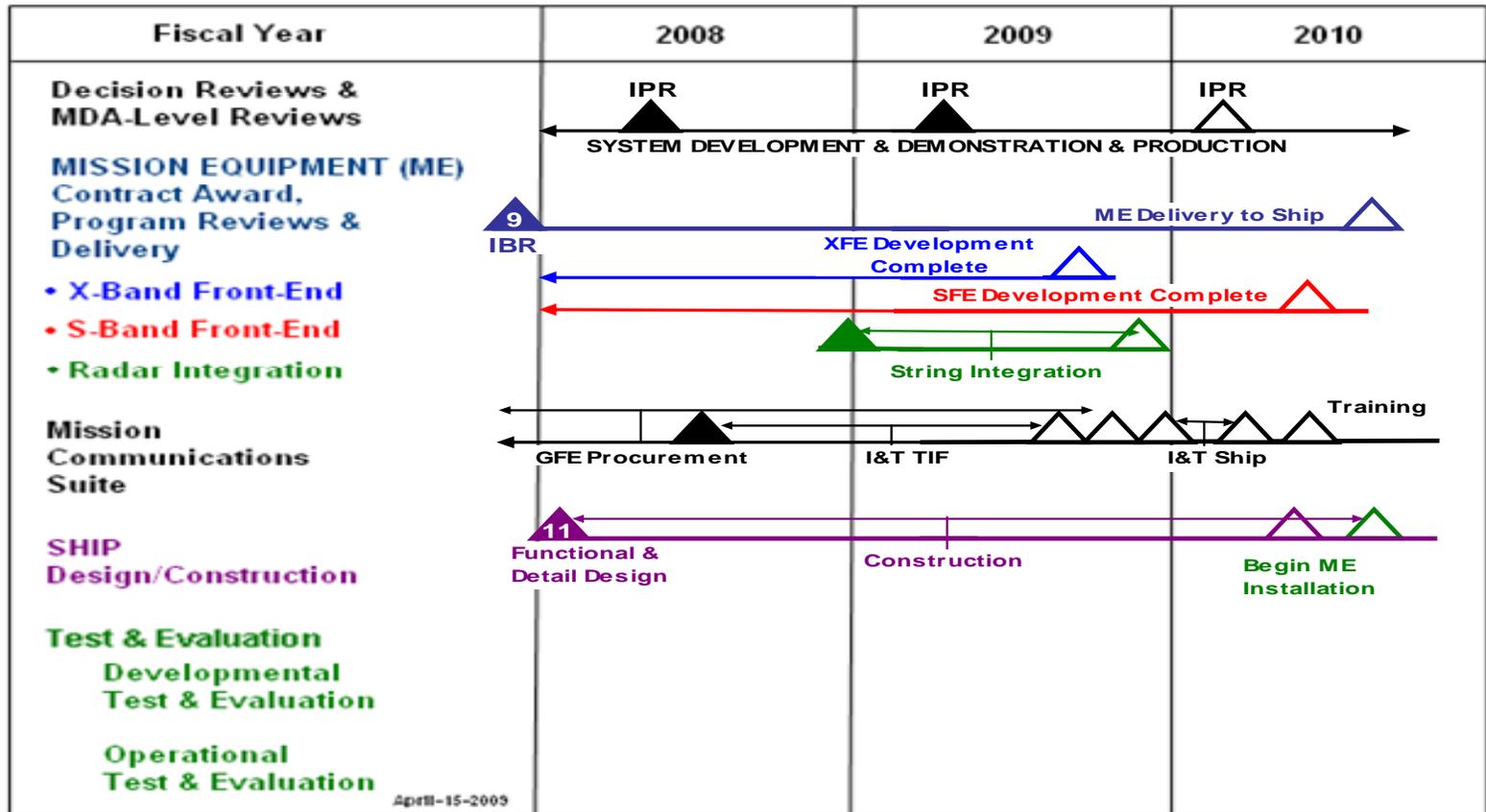
<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>	
<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY <b>RD TEN/BA 7</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0305149N/COBRA JUDY</b>	PROJECT NUMBER AND NAME <b>4021/CJR System Engineering</b>	
<b>B. ACCOMPLISHMENTS/PLANNED PROGRAM:</b>			
	FY 2008	FY 2009	FY 2010
<b>Accomplishments/Effort/Subtotal Cost</b>	84.536	69.467	32.726
RDT&E Articles Quantity	0	0	0
<b>DESIGN AND RISK REDUCTION</b>			
Accomplishments			
<ul style="list-style-type: none"> <li>- Completed program restructure to address funding, ship, and Mission Equipment schedule misalignment</li> <li>- X-Band Front End (XFE) T/R module and BSC production complete and XFE array halves moved to Near-Field Range for testing</li> <li>- S-band Front End (SFE) T/R module manufacturing in process and Pilot Antenna moved to Near-Field</li> </ul>			
Planned:			
	#NAME?		
- String integration begins in FY2009			
	FY 2008	FY 2009	FY 2010
<b>Accomplishments/Effort/Subtotal Cost</b>	43.190	26.945	22.719
RDT&E Articles Quantity	0	0	0
<b>SHIPBUILDING</b>			
Accomplishments:			
<ul style="list-style-type: none"> <li>- Completed Critical Design Review</li> <li>- Began Construction Nov 2007</li> <li>- Keel laying 4th QTR FY2008</li> </ul>			
	FY 2008	FY 2009	FY 2010
<b>Accomplishments/Effort/Subtotal Cost</b>	2.239	1.730	1.722
RDT&E Articles Quantity	0	0	0
<b>SYSTEM ENGINEERING</b>			
Accomplishments:			
- Completed designs for non-prime mission equipment (C4I, data handling, classified mission equipment)			

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<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION (CONTINUATION)</b>				DATE May 2009
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>		
Planned: - Begin land-based risk reduction/integration demonstration of Ship configuration non-prime mission equipment (C4I, data handling, classified mission equipment) at SPAWAR Test and Integration Facility in 1st QTR FY2009)				
		FY 2008	FY 2009	FY 2010
<b>Accomplishments/Effort/Subtotal Cost</b>		1.353	0.396	2.000
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 2008	FY 2009	FY 2010
<b>Accomplishments/Effort/Subtotal Cost</b>		0.518	2.276	2.894
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 May 2009			
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 7		PROGRAM ELEMENT NUMBER AND NAME 0305149N/COBRA JUDY				PROJECT NUMBER AND NAME 4021/CJR System Engineering					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date				
System Engineering	WR	Various	3.977	0.119	DEC-08	0.100	DEC-09				
System Engineering	MIPR	Various	3.096	0.320	DEC-08	0.100	DEC-09				
System Engineering	GSA	Various	1.691	0.000		0.000					
System Engineering	CPAF	BAE	0.840	0.000		0.200	DEC-09				
System Engineering	C NF	GTRI	2.118	0.121	DEC-08	0.220	DEC-09				
System Engineering	CPFF	JHU/APL	5.790	0.149	DEC-08	0.500	DEC-09				
System Engineering	MIPR	MIT/LL	4.319	0.000		0.100	FEB-10				
System Engineering	WR	NRL	1.880	0.000		0.000					
System Engineering	WR	NSWC CSS	2.942	0.000		0.000					
System Engineering	WR	NSWC DD	10.694	1.021	DEC-08	0.300	DEC-09				
System Engineering	WR	NSWC PHD	1.535	0.000		0.000					
System Engineering	Various	PEO Ships	3.000	0.000		0.000					
System Engineering	WR	SEG	1.195	0.000		0.000					
Systems Engineering	WR	SPAWAR	2.922	0.000		0.000					
Systems Engineering	WR	NSWC/CRANE	0.204	0.000		0.202	DEC-09				
<b>Subtotal Support Costs</b>			<b>46.203</b>	<b>1.730</b>		<b>1.722</b>					
Remarks:											
Test and Evaluation	PAF/WR/R	Various	0.295	0.247	VAR	0.100	VAR				
Test and Evaluation	CPAF	Raytheon	1.200	0.000		0.000					
Test and Evaluation		AFOTEC	0.330	0.025	DEC-08	0.100	FEB-10				
Test and Evaluation		COMOPTEVFOR	0.315	0.025	DEC-08	0.000					
Test and Evaluation		JITC	0.225	0.000		0.000					
Test and Evaluation	WR	NSWC DD	2.019	0.099	DEC-08	1.700	FEB-10				
Test and Evaluation		PEO SHIPS	0.452	0.000		0.100	FEB-10				
Test and Evaluation		TSC	0.422	0.000		0.000					
<b>Subtotal Test and Evaluation</b>			<b>5.258</b>	<b>0.396</b>		<b>2.000</b>					
Remarks:											

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<b>EXHIBIT R-3, RDT&amp;E PROJECT COST ANALYSIS</b>							DATE May 2009			
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RDTEN/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 Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2009 Cost (\$000)	FY 2009 Award Date	FY 2010 Cost (\$000)	FY 2010 Award Date			
Contractor Engineering	WR/REQN	Various	1.687	1.260	DEC-08	0.100	DEC-09			
	CPAF	BAE Systems	10.611	0.000		0.000				
	GSA	Computer Science Corp	3.255	0.000		0.000				
	GSA	Systems Planning & Analysis	1.900	0.000		0.000				
Program Management	CPAF	BAE Systems	12.233	0.991	DEC-08	2.714	DEC-09			
	CPFF	DTI	0.435	0.000		0.000				
Travel	PD	PEO IWS2	0.756	0.025	DEC-08	0.080	DEC-09			
<b>Subtotal Management Services</b>			<b>30.877</b>	<b>2.276</b>		<b>2.894</b>				
Remarks:										
Design and Risk Reduction	CPAF/IF	Raytheon	408.360	66.666	OCT-08	32.107	OCT-09			
Design and Risk Reduction	Various	PEO Ships	100.815	26.945	OCT-08	22.719	OCT-09			
Design and Risk Reduction	Various	SPAWAR	5.855	2.801	OCT-08	0.619	OCT-09			
Shipbuilding	Various	MIT/TWS	0.500	0.000		0.000				
<b>Subtotal Product Development</b>			<b>515.530</b>	<b>96.412</b>		<b>55.445</b>				
Remarks:										
<b>Total Cost</b>			<b>597.868</b>	<b>100.814</b>		<b>62.061</b>				

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 7	PROGRAM ELEMENT NUMBER AND NAME 0305149N/COBRA JUDY	PROJECT NUMBER AND NAME 4021/CJR System Engineering



CDR – Critical Design Review  
 DT&E – Developmental Test and Evaluation  
 GFE – Gov't Furnished Equipment  
 I&T – Integration and Test  
 IBR – Integrated Baseline Review  
 IPR – Interim Program Review  
 IOC – Initial Operational Capability

IOT&E – Initial Operational Test and Evaluation  
 ME – Mission Equipment  
 MS – Milestone  
 OPEVAL – Operational Evaluation  
 OTRR – Operational Test Readiness Review  
 PDR – Preliminary Design Review

PDTT – Post Delivery Test and Trial  
 SDR – System Design Review  
 SFE – S-Band Radar Front End  
 TECHEVAL – Technical Evaluation  
 TIF – Test and Integration Facility  
 XFE – X-Band Radar Front End

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<b>EXHIBIT R-4a, SCHEDULE DETAIL</b>						DATE May 2009	
<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 2008	FY 2009	FY 2010			
Initial Operational Capability (IOC)							
X- Band Development Complete				1Q			
S-Band Radar Development Complete				3Q			
Mission Equipment String Integration Complete				2Q			
Mission Communications Suite Lightoff				2Q			
Ship Construction Start		2Q					
Ship Delivery				3Q			