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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0305149N: Cobra Judy							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	100.814	61.804	36.527	0.000	36.527	39.520	17.292	0.000	0.000	0.000	853.825
4021: CJR System Engineering	100.814	61.804	36.527	0.000	36.527	39.520	17.292	0.000	0.000	0.000	853.825
A. Mission Description and Budget Item Justification											
Cobra Judy Replacement funds will replace the current U.S. Naval Ship (USNS) Observation Island which has become unsustainable and due to leave service in 2012. This program will fund the development of a single ship-based radar suite for ballistic missile treaty verification. Cobra Judy provides monitoring and verification of specific aspects of United States treaties with other countries. It is necessary we replace the current 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. This program is joint-funded.											
B. Program Change Summary (\$ in Millions)											
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total						
Previous President's Budget	100.814	62.061	0.000	0.000	0.000						
Current President's Budget	100.814	61.804	36.527	0.000	36.527						
Total Adjustments	0.000	-0.257	36.527	0.000	36.527						
• Congressional General Reductions		-0.257									
• Congressional Directed Reductions		0.000									
• Congressional Rescissions	0.000	0.000									
• Congressional Adds		0.000									
• Congressional Directed Transfers		0.000									
• Reprogrammings	0.000	0.000									
• SBIR/STTR Transfer	0.000	0.000									
• Program Adjustments	0.000	0.000	36.527	0.000	36.527						
Change Summary Explanation											
Technical: Not applicable.											
Schedule: Not applicable.											

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FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0305149N: <i>Cobra Judy</i>				PROJECT 4021: <i>CJR System Engineering</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
4021: <i>CJR System Engineering</i>	100.814	61.804	36.527	0.000	36.527	39.520	17.292	0.000	0.000	0.000	853.825
Quantity of RDT&E Articles	0	0	1	0	1	0	0	0	0		
A. Mission Description and Budget Item Justification											
<p>A. (U) Mission Description</p> <p>Cobra Judy Replacement funds will replace the current U.S. Naval Ship (USNS) Observation Island which has become unsustainable and due to leave service in 2012. This program will fund the development of a single ship-based radar suite for ballistic missile treaty verification. Cobra Judy provides monitoring and verification of specific aspects of United States treaties with other countries. It is necessary we replace the current 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. This program is joint-funded.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
DESIGN AND RISK REDUCTION							100.754	57.114	33.250	0.000	33.250
<p><i>FY 2009 Accomplishments:</i></p> <ul style="list-style-type: none"> - X-Band Front End (XFE) Near-Field Range testing complete - XFE and SFE String Integration in process - Continue Common Back End software development and array build and test - S-Band Front End (SFE) manufacturing in process - expected completion 1QTR FY10 <p><i>FY 2010 Plans:</i></p> <ul style="list-style-type: none"> - Continue Common Back End software development and array build and test - S-Band Front End Array testing begins 2QTR FY10 - S-Band Front End (SFE) manufacturing in process - expected completion 1QTR FY10 											

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: - Continue Common Back End software development and array build and test						
SYSTEMS ENGINEERING FY 2010 Plans: - Began 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 1QTR FY09 - Ship installation of non-prime mission equipment 3QTR FY10 FY 2011 Base Plans: - Began 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 1QTR FY09 - Ship installation of non-prime mission equipment 3QTR FY10		0.000	4.610	2.197	0.000	2.197
PROGRAM MANAGEMENT FY 2009 Accomplishments: - Program planning, assessment of technical alternatives, risk identification and mitigation. - Cost and schedule development and execution FY 2010 Plans: - Program planning, assessment of technical alternatives, risk identification and mitigation. - Cost and schedule development and execution FY 2011 Base Plans: - Program planning, assessment of technical alternatives, risk identification and mitigation. - Cost and schedule development and execution		0.060	0.080	1.080	0.000	1.080

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Accomplishments/Planned Programs Subtotals						100.814	61.804	36.527	0.000	36.527	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0303901N/4003: Cobra Judy Replacement	142.947	53.421	34.457	0.000	34.457	39.963	16.000	0.000	0.000	0.000	286.788
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. Performance Metrics											
-Successfully complete Design Reviews & MDA-Level Reviews -Successfully complete Initial Operational Capability (IOC) -Successfully complete X-Band Development -Successfully complete S-Band Radar Development -Successfully complete Mission Equipment String Integration -Successfully complete ME Ship Integration -Successfully complete Mission Communications Suite Lightoff -Ship Delivery -Successfully complete TECHEVAL/Post Delivery Test & Trails -Successfully complete Operational Test & Readiness Review (OTRR) -Successfully complete IOT&E Initial Operational Test OPEVAL											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0305149N: <i>Cobra Judy</i>				PROJECT 4021: <i>CJR System Engineering</i>					
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Design and Risk Reduction	C/TBD	Raytheon CPAF/IF	509.114	57.114	Oct 2009	33.250	Oct 2010	0.000		33.250	Continuing	Continuing	Continuing
Shipbuilding	C/Various	PEO Ships Various	100.815	0.000		0.000		0.000		0.000	0.000	100.815	Continuing
Design and Risk Reduction	C/Various	SPAWAR Various	5.855	0.000		0.000		0.000		0.000	0.000	5.855	Continuing
Design and Risk Reduction	C/Various	MIT/TWS Various	0.500	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			616.284	57.114		33.250		0.000		33.250			
Remarks													
Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering	WR	Various WR	3.977	0.000		0.000		0.000		0.000	0.000	3.977	Continuing
System Engineering	C/TBD	Various MIPR	3.096	0.000		0.000		0.000		0.000	0.000	3.096	Continuing
System Engineering	C/TBD	Various GSA	1.691	0.000		0.000		0.000		0.000	0.000	1.691	Continuing

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Support (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
System Engineering	C/CPAF	BAE CPAF	0.840	0.000		0.000		0.000		0.000	0.000	0.840	Continuing	
System Engineering	C/TBD	GTRI C NF	2.118	0.000		0.000		0.000		0.000	0.000	2.118	Continuing	
System Engineering	C/CPFF	JHU/APL CPFF	5.790	0.000		0.000		0.000		0.000	0.000	5.790	Continuing	
System Engineering	C/TBD	MIT/LL MIPR	4.319	0.975	Feb 2010	0.000		0.000		0.000	0.000	5.294	Continuing	
System Engineering	WR	NRL WR	1.880	0.000		0.000		0.000		0.000	0.000	1.880	Continuing	
System Engineering	WR	NSWC CSS WR	2.942	0.000		0.000		0.000		0.000	0.000	2.942	Continuing	
System Engineering	WR	NSWC DD WR	10.694	0.898	Dec 2009	1.200	Dec 2010	0.000		1.200	Continuing	Continuing	Continuing	
System Engineering	WR	NSWC PHD WR	1.535	0.000		0.000		0.000		0.000	0.000	1.535	Continuing	
System Engineering	C/Various	PEO Ships Various	3.000	0.000		0.000		0.000		0.000	0.000	3.000	Continuing	
System Engineering	WR	SEG WR	1.195	0.000		0.000		0.000		0.000	0.000	1.195	Continuing	
Systems Engineering	WR	SPAWAR WR	2.922	2.737	Dec 2009	0.997	Dec 2010	0.000		0.997	Continuing	Continuing	Continuing	
Systems Engineering	WR	NSWC/CRANE WR	0.204	0.000		0.000		0.000		0.000	0.000	0.204	Continuing	
Subtotal			46.203	4.610		2.197		0.000		2.197				

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Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks													
Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	C/TBD	Various CPAF/WR/RE	0.295	0.000		0.000		0.000		0.000	0.000	0.295	Continuing
Test and Evaluation	C/CPAF	Raytheon CPAF	1.200	0.000		0.000		0.000		0.000	0.000	1.200	Continuing
Test and Evaluation	C/TBD	AFOTEC Not Specified	0.330	0.000		0.000		0.000		0.000	0.000	0.330	Continuing
Test and Evaluation	C/TBD	COMOPTEVFOR Not Specified	0.315	0.000		0.000		0.000		0.000	0.000	0.315	Continuing
Test and Evaluation	C/TBD	JITC Not Specified	0.225	0.000		0.000		0.000		0.000	0.000	0.225	Continuing
Test and Evaluation	WR	NSWC DD WR	2.019	0.000		0.000		0.000		0.000	0.000	2.019	Continuing
Test and Evaluation	C/TBD	PEO SHIPS Not Specified	0.452	0.000		0.000		0.000		0.000	0.000	0.452	Continuing
Test and Evaluation	C/TBD	TSC Not Specified	0.422	0.000		0.000		0.000		0.000	0.000	0.422	Continuing

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Test and Evaluation (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			5.258	0.000		0.000		0.000		0.000	0.000	5.258	

Remarks

Management Services (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	C/CPAF	BAE Systems CPAF	12.233	0.000		1.000	Dec 2010	0.000		1.000	Continuing	Continuing	Continuing
Program Management	C/CPFF	DTI CPFF	0.435	0.000		0.000		0.000		0.000	0.000	0.435	Continuing
Contractor Engineering	C/CPAF	BAE Systems CPAF	10.611	0.000		0.000		0.000		0.000	0.000	10.611	Continuing
Contractor Engineering	C/TBD	Computer Science Corp Not Specified	3.255	0.000		0.000		0.000		0.000	0.000	3.255	Continuing
Contractor Engineering	C/TBD	Systems Planning and Analysis Not Specified	1.900	0.000		0.000		0.000		0.000	0.000	1.900	Continuing
Contractor Engineering	C/TBD	Various Not Specified	1.687	0.000		0.000		0.000		0.000	0.000	1.687	Continuing
Travel	C/TBD	PEO IWS2	0.816	0.080	Dec 2009	0.080	Dec 2010	0.000		0.080	Continuing	Continuing	Continuing

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Management Services (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method & Type</th> <th>Performing Activity & Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td></td> <td></td> <td>PD</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td>30.937</td> <td>0.080</td> <td></td> <td>1.080</td> <td></td> <td>0.000</td> <td></td> <td>1.080</td> <td></td> <td></td> <td></td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract			PD												Subtotal			30.937	0.080		1.080		0.000		1.080			
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																																											
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	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract																																																													
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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

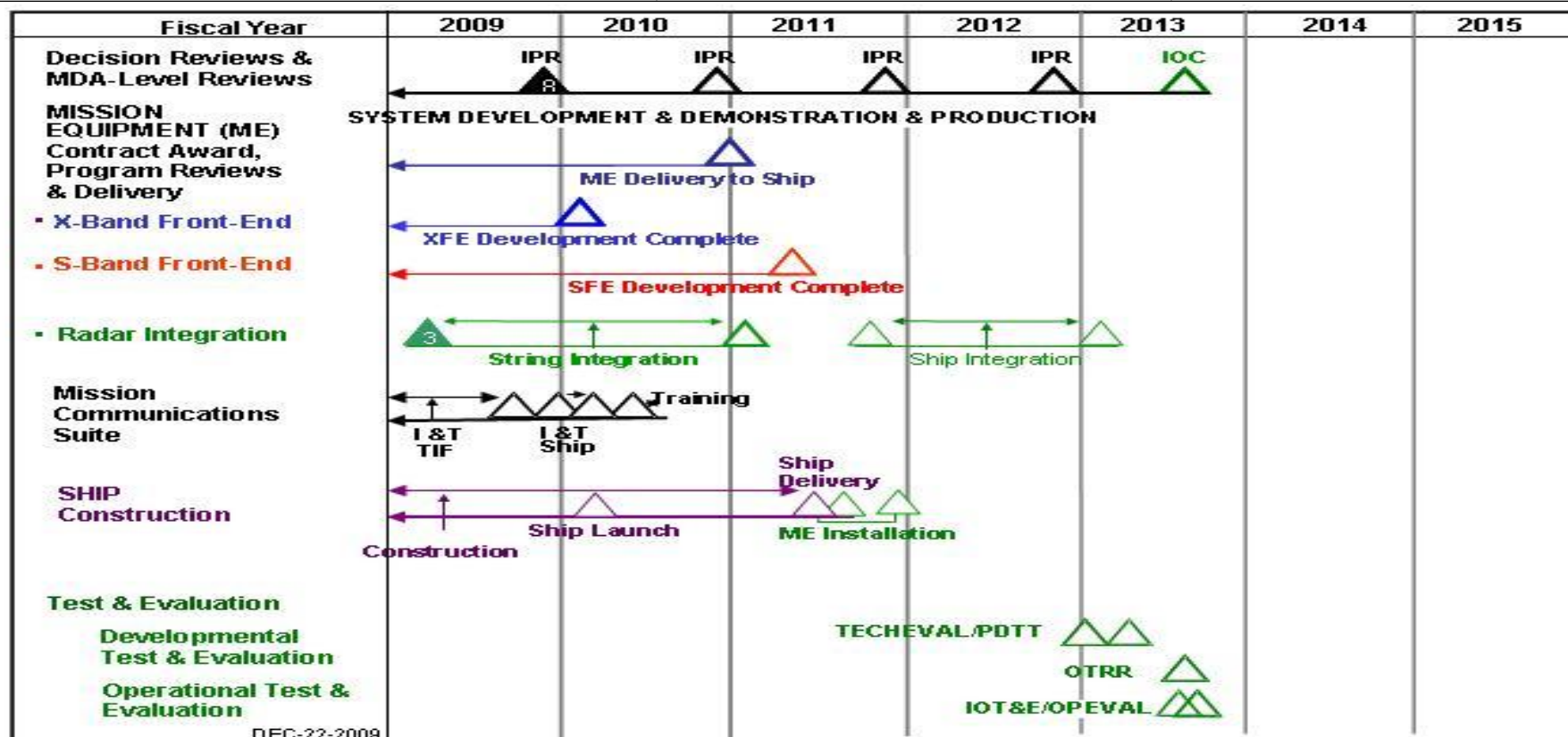
1319: Research, Development, Test & Evaluation, Navy
BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0305149N: Cobra Judy

PROJECT

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

PDPT – Post Delivery Test and Trials
 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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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Design Reviews & MDA-Level Reviews	1	2009	4	2012
Initial Operational Capability (IOC)	3	2013	3	2013
X- Band Development	1	2009	1	2010
S-Band Radar Development	1	2009	2	2011
Mission Equipment String Integration	1	2009	1	2011
ME Ship Integration	4	2011	1	2013
Ship Delivery	2	2011	2	2011
TECHEVAL/ Post Delivery Test & Trials	1	2013	2	2013
OTRR	3	2013	3	2013
IOT&E/OPEVAL	3	2013	3	2013

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