

<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 4</b>			<b>R-1 ITEM NOMENCLATURE</b> <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>				
<b>COST (In Millions)</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
Total PE Cost	11.166	10.719	11.001	10.803	10.815	10.791	10.750
2133 / QRCC	4.884	3.490	3.597	3.719	3.783	3.809	3.884
2184 / Force AAW Coordination Technology	1.926	7.229	7.404	7.084	7.032	6.982	6.866
3160 / Ocean Surveillance	4.356	0.000	0.000	0.000	0.000	0.000	0.000
<b>A. MISSION DESCRIPTION:</b>							
<p>This program incorporates efforts dedicated to the enhancement of ship defense against Anti-Air Warfare (AAW) and other evolving threats. Its primary focus is on the development of technologies, systems, and procedures necessary to defeat the evolving Anti-Ship Cruise Missile (ASCM) threat and then expands to allow for application of these technologies in other warfighting areas. These projects focus on ship defense improvements through the development of advanced concepts and capabilities that will enhance both defense in depth of ships in a force and self defense of individual ships in a littoral war-fighting environment.</p> <p>Project 2133 is divided into two sub-projects, Requirements Analysis Working Group (RAWG) and Quick Reaction Combat Capability. Requirements Analysis Working Group (RAWG) provides independent analysis for a variety of combat system trade-offs, ship class performance studies, and force protection strategic plan development. Quick Reaction Combat Capability (QRCC), provides advanced concepts and technology developments for the multi-sensor integration of ship detection equipment, integration and coordination of ship self defense weapons, and coordination of hardkill and softkill assets to improve individual ship self defense capabilities against the ASCM threat.</p> <p>Force Advanced Warfare Concept Technology (FACT), Project 2184, demonstrates concepts and capabilities that will enhance the warfighting ability of ships and aircraft and enable the coupling of the Force into a single, distributed weapon system through more effective use of tactical data, and force sensors and weapons. During FY06, the Innovation Team expanded the offensive counter air (OCA) capabilities developed for the Joint Targeting Attack and Assessment Capability (JTAAC) utilizing electro-optical (EO) and infrared (IR) sensors to include other sensors.</p> <p>During FY07, under the Ocean Surveillance Initiative, Project 3160, the Innovation Team will continue to leverage their expertise in resolving complex warfighter issues as well as the end to end capability realized in previous products to develop a prototype focused on creating a coherent and consistent surface track picture. JTAAC brought innovative technology to offensive counter air and the Ocean Surveillance Initiative will extend those advancements to the maritime offensive counter air and surface track picture domains. FACT and Ocean Surveillance Initiative efforts will combine and continue under Project 2184 in FY08.</p>							

**CLASSIFICATION:** UNCLASSIFIED

**EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION (CONTINUATION)** **DATE**  
February 2008

**APPROPRIATION/BUDGET ACTIVITY**  
**RD TEN/BA 4** **R-1 ITEM NOMENCLATURE**  
**0603755N/SHIP SELF DEFENSE - DEM/VAL**

**B. PROGRAM CHANGE SUMMARY:**

Funding:	FY 2007	FY 2008	FY 2009
FY 2008 President's Budget	8.863	10.954	11.010
FY 2009 President's Budget	11.166	10.719	11.001
Total Adjustments	2.303	-0.235	-0.009
Summary of Adjustments			
Undistributed/General Adjustments	2.303	-0.235	-0.009

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>					
<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>					<b>DATE</b> February 2008		
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 4</b>		<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>			<b>PROJECT NUMBER AND NAME</b> <b>2133/QRCC</b>		
<b>COST (In Millions)</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
Project Cost	4.884	3.490	3.597	3.719	3.783	3.809	3.884
RDT&E Articles Qty	0	0	0	0	0	0	0

**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:**

The Requirements and Analysis Working Group (RAWG) provides independent analysis for a variety of combat system trade-offs, ship class performance studies, and force protection strategic plan development. Quick Reaction Combat Capability (QRCC) provides advanced concepts and technology developments for the multi-sensor integration of ship detection equipment, integration and coordination of ship self defense weapons, and coordination of hardkill and softkill assets to improve individual ship self defense capabilities against the Anti-Ship Cruise Missile (ASCM) threat.

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>	
<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY <b>RD TEN/BA 4</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>	PROJECT NUMBER AND NAME <b>2133/QRCC</b>	
<b>B. ACCOMPLISHMENTS/PLANNED PROGRAM:</b>			
	FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>	4.884	0.000	0.000
RDT&E Articles Quantity	0	0	0
The RAWG will analyze Ship Self Defense PRA capabilities. Analysis will include baseline PRA requirements, excursions based on raid size, environment, and other operational considerations. The RAWG will respond to the PEO and OPNAV sponsors emergent tasking and participate and attend PRA working group meetings.			
	FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>	0.000	3.490	0.000
RDT&E Articles Quantity	0	0	0
The RAWG will continue leadership and management of the Common ASCM Threat Characterization process for PEO IWS. The RAWG will continue to analyze Ship Self Defense PRA capabilities and respond to the PEO and OPNAV sponsors emergent tasking and participate and attend PRA working group meetings.			
	FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>	0.000	0.000	3.597
RDT&E Articles Quantity	0	0	0
The RAWG will continue leadership and management of the Common ASCM Threat Characterization process for PEO IWS. The RAWG will continue to analyze Ship Self Defense PRA capabilities and respond to the PEO and OPNAV sponsors emergent tasking and participate and attend PRA working group meetings.			
<b>C. OTHER PROGRAM FUNDING SUMMARY:</b>			
N/A			
<b>D. ACQUISITION STRATEGY:</b>			
N/A			

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>										
<b>EXHIBIT R-3, RDT&amp;E PROJECT COST ANALYSIS</b>										DATE February 2008		
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RDTE/BA 4</b>		<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>					<b>PROJECT NUMBER AND NAME</b> <b>2133/QRCC</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	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	Dahlgren, NSWC DD	3.487	4.884	OCT-06	3.490	OCT-07	3.597	OCT-08	CONT	CONT	0.000
<b>Subtotal Product Development</b>			<b>3.487</b>	<b>4.884</b>		<b>3.490</b>		<b>3.597</b>		<b>CONT</b>	<b>CONT</b>	<b>0.000</b>
Remarks:												
<b>Total Cost</b>			<b>3.487</b>	<b>4.884</b>		<b>3.490</b>		<b>3.597</b>		<b>CONT</b>	<b>CONT</b>	<b>0.000</b>

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>					
<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>					DATE February 2008		
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 4</b>		<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>			<b>PROJECT NUMBER AND NAME</b> <b>2184/Force AAW Coordination Technology</b>		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	1.926	7.229	7.404	7.084	7.032	6.982	6.866
RDT&E Articles Qty	0	0	0	0	0	0	0

**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:**

The Force Advanced Warfare Concept Technology (FACT) Program is an advanced development effort designed to demonstrate Advanced Force concepts and capabilities that will significantly improve our Force defense in depth, including both local area and self defense capabilities against current and future threats. FACT improvements are designed to enhance the warfighting ability of ships and aircraft and to enable coupling of the Force into a single, distributed weapon system and towards more effective use of tactical data and the cooperative use of all the force sensors and weapons. These capabilities will provide the ship defense flexibility needed to meet the threat brought about by increasing numbers of highly sophisticated weapons held by potentially hostile third world countries. FACT defines requirements and develops prototype systems or modifications to existing systems to test new concepts for the coordination of Force operations. FACT is a model Sea Enterprise effort that consistently delivers advanced war-fighting capability that addresses current Fleet shortfalls and needs quickly and cost effectively. Some examples of prototype systems now in production are AN/SPS-48C Detection Data Converter, AN/SPS-48E Environmental Control Feature, Shipboard Gridlock System Automatic Correlation (SGS/AC) and Dial-a-Track Quality (Link-11 Quality Selection). Other FACT developments nearing production stages are the Automatic Identification System (Auto-ID) and the Multi-Frequency Link-11 capability; Dual Net Multi-Frequency Link-11 (DNMFL); Force Threat Evaluation Weapons Assignment (FTEWA); and the prototype Area Air Defense Commander (AADC) and the Joint Targeting Attack and Assessment Capability (JTAAC). During FY06, the Innovation Team expanded the offensive counter air (OCA) capabilities developed for JTAAC utilizing electro-optical (EO) and infrared (IR) sensors to include other sensors. This effort will be a complement to the JTAAC, leveraging the technologies and end to end capability realized by JTAAC to inform future maritime offensive counter air efforts. In FY07, under 3160, the Ocean Surveillance Initiative (OSI), was begun to provide a persistent wide area surface track picture. This initiative is continuing in FY08 under 2184, FACT. In developing OSI, the FACT team is coordinating with other organizations to include a variety of Navy programs and Customs and Border Protection (CBP) to leverage off of experimentation opportunities and mission area expertise.

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>	
<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY <b>RD TEN/BA 4</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>	PROJECT NUMBER AND NAME <b>2184/Force AAW Coordination Technology</b>	
<b>B. ACCOMPLISHMENTS/PLANNED PROGRAM:</b>			
	FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>	1.926	7.229	7.404
RDT&E Articles Quantity	0	0	0
<p>Conduct critical FACT initiative proof of concept experiments. Provide top level programmatic support, technical analysis and assist in the development processes, procedures and documentation that impact the execution of the FACT program requirements. FACT and Ocean Surveillance Initiative efforts will combine and continue under Project 2184 in FY08. On-going development of an Ocean Surveillance Initiative prototype which will leverage the end to end capability realized by JTAAC and have the objective goal of attaining a tactically significant probability of detection, continuous track, and correct classification of small and medium sized vessels at sea state 5. Conduct critical experiments in support of the Ocean Surveillance Initiative. Provide top level programmatic support, technical analysis and assist in the development processes, procedures and documentation that impact the execution of the Ocean Surveillance Initiative.</p> <p><b>C. OTHER PROGRAM FUNDING SUMMARY:</b> Not Applicable</p> <p><b>D. ACQUISITION STRATEGY:</b> Not Applicable</p>			

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>										
<b>EXHIBIT R-3, RDT&amp;E PROJECT COST ANALYSIS</b>										DATE February 2008		
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 4</b>		<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>					<b>PROJECT NUMBER AND NAME</b> <b>2184/Force AAW Coordination Technology</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	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
Primary Hardware Development	CPFF	APL/Laurel, MD	7.285	1.526	11-06	6.829	11-07	7.004	11-08		22.644	0.000
<b>Subtotal Product Development</b>			<b>7.285</b>	<b>1.526</b>		<b>6.829</b>		<b>7.004</b>		<b>0.000</b>	<b>22.644</b>	<b>0.000</b>
Remarks:												
Support Costs	SEAPORT	DELTA/Arlington, VA	0.000	0.400		0.400		0.400		0.000	1.200	0.000
<b>Subtotal Support Costs</b>			<b>0.000</b>	<b>0.400</b>		<b>0.400</b>		<b>0.400</b>		<b>0.000</b>	<b>1.200</b>	<b>0.000</b>
Remarks:												
<b>Total Cost</b>			<b>7.285</b>	<b>1.926</b>		<b>7.229</b>		<b>7.404</b>		<b>0.000</b>	<b>23.844</b>	<b>0.000</b>

**CLASSIFICATION:**

EXHIBIT R4, Schedule Profile:																								DATE:							
APPROPRIATION/BUDGET ACTIVITY																								PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME			
RDT&E, N / BA-4																								0603755N/SHIP SELF DEFENSE				2184 Force Advanced Warfare Concept Technology (FACT)			
Fiscal Year	2007				2008				2009				2010				2011				2012				2013						
	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			
Support GWOT Operations				End △																											
Support Transtion of JTAAC				End △																											
Begin Ocean Surveillance Initiative	Begin △		Phase 1 △	Phase 2 △	△	△	△		△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△				
Follow-on FACT Initiative																					Begin △										

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>						
<b>EXHIBIT R-4a, SCHEDULE DETAIL</b>						<b>DATE</b> February 2008		
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 4</b>		<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>			<b>PROJECT NUMBER AND NAME</b> <b>2184/Force AAW Coordination Technology</b>			
Schedule Profile		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Exercise Prototype Capability			2Q, 3Q					
Conclude OSI				4Q				
Begin Follow-on FACT Initiative					1Q			
Begin Ocean Surveillance Initiative		1Q						
Phase 1 Data Collection with Customs & Border Protection		3Q						
Phase 2 Data Collection with Customs & Border Protection		4Q	1Q					
Begin Transition of JTAAC Within USN								
Conclude Suppot of GWOT Operations		4Q						
Conclude Transition of JTAAC Within USN								

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>					
<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>					DATE February 2008		
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 4</b>		<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>			<b>PROJECT NUMBER AND NAME</b> <b>3160/Ocean Surveillance</b>		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	4.356	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty	0	0	0	0	0	0	0
<b>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b>							
<p>The Innovation Program is an advanced development effort designed to demonstrate Force concepts and capabilities which significantly improve our Force defense in depth, including both local area and self defense capabilities against current and future threats. The Innovation Team has consistently provided the warfighter innovative products which resolve current complex warfighter issues quickly and cost effectively. The Innovation Team will begin expanding its focus to include maritime offensive counter air. Under the auspices of the Ocean Surveillance Initiative, this innovation cell plans to leverage technologies that they developed in the JTAAC to provide a prototype which will create a coherent surface track picture in a large area of operations (AO) enabling sustained situational understanding. Their focus will be optimizing sensor selection and configuration to reliably detect, track, and classify ships in the AO with an objective goal of attaining a tactically significant probability of detection, continuous track, and correct classification down to small and medium sized vessels in sea state 5. The Ocean Surveillance Initiative is a complement to JTAAC. The Ocean Surveillance Initiative is the natural progression for the USN to leverage the JTAAC offensive counter air end to end capability to the maritime domain. FACT and Ocean Surveillance Initiative efforts are combined and are continuing under Project 2184 in FY08.</p>							

<b>CLASSIFICATION:</b>		<b>UNCLASSIFIED</b>	
<b>EXHIBIT R-2a, RDT&amp;E PROJECT JUSTIFICATION</b>			<b>DATE</b> February 2008
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RD TEN/BA 4</b>	<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0603755N/SHIP SELF DEFENSE - DEM/VAL</b>	<b>PROJECT NUMBER AND NAME</b> <b>3160/Ocean Surveillance</b>	
<b>B. ACCOMPLISHMENTS/PLANNED PROGRAM:</b>			
	FY 2007	FY 2008	FY 2009
<b>Accomplishments/Effort/Subtotal Cost</b>	4.356	0.000	0.000
RDT&E Articles Quantity	0	0	0
<p>On-going development of an Ocean Surveillance Initiative prototype which will leverage the end to end capability realized by JTAAC and have the objective goal of attaining a tactically significant probability of detection, continuous track, and correct classification of small and medium sized vessels at sea state 5. Conduct critical experiments in support of the Ocean Surveillance Initiative. Provide top level programmatic support, technical analysis and assist in the development processes, procedures and documentation that impact the execution of the Ocean Surveillance Initiative. FACT and Ocean Surveillance Initiative efforts are combined and continue under Project 2184 in FY08.</p>			
<b>C. OTHER PROGRAM FUNDING SUMMARY:</b>			
Not Applicable.			
<b>D. ACQUISITION STRATEGY:</b>			
Not Applicable.			