

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification							DATE: JUNE 2001			
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA 4					Ship Self Defense/0603755N					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Total PE Cost	9.628	6.550	8.353						CONT.	CONT.
QRCC/RAWG 22133	2.897	0.000	2.180						CONT.	CONT.
Force AAW Coord. Tech. (FACT)/ K2184/U2184	6.731	6.550	6.173						CONT.	CONT.
Quantity of RDT&E Articles										
A. (U) Mission Description and Budget Item Justification: This program incorporates efforts dedicated to the enhancement of ship self defense against Anti-Air Warfare (AAW) threats. Its primary focus is on the development of technologies, systems, and procedures necessary to defeat the evolving Anti-Ship Cruise Missile (ASCM) threat. 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 individualships in a littoral war fighting environment. Quick Reaction Combat Capability (QRCC), Project K2133, 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 individualship self defense capabilities against the ASCM threat. Beginning in FY02, 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. Force Anti-Air Warfare Coordination Technology (FACT), Project K2184, demonstrates Force Anti-Air Warfare (AAW) concepts and capabilities which will enhance the AAW war-fighting ability of ships and aircraft and enable the coupling of the Force into a single, distributed AAW weapon system through more effective use of tactical data, and force sensors and weapons.										
B. (U) Program Change Summary										
	FY 2000	FY 2001	FY 2002							
FY 2001 President's Budget Submit:	8.607	6.610	8.919							
Appropriated Value:	8.654	6.610								
Adjustments to FY2000/2001 Appropriated Value										
FY2001 President's Budget:	0.974	-0.060	-0.566							
FY 2002 PRES Budget Submit	9.628	6.550	8.353							
Funding: FY00: Program realignment (+\$1.395)and congressional reductions of (\$-.421) FY01: Congressional Reductions (\$-.060) FY02: Program adjustments (\$-.566)										

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**Exhibit R-2, RDT&E Budget Item Justification**

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EXHIBIT R-2a, RDT&E Project Justification							DATE:			
							JUNE 2001			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N BA4	PROGRAM ELEMENT NAME AND NUMBER SHIP SELF DEFENSE 0603755N				PROJECT NAME AND NUMBER Force AAW Coordination Technology K2184					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	6.731	6.550	6.173						CONT.	CONT.
RDT&E Articles Qty										

A. (U) Mission Description and Budget Item Justification: Force Anti-Air Warfare Coordination Technology (FACT) Program is an advanced development effort designed to demonstrate Force Anti-Air Warfare (AAW) concepts and capabilities which will significantly improve our Force defense in depth, including both local area and self defense capabilities against current and future AAW threats. FACT improvements are designed to enhance the AAW warfighting ability of ships and aircraft and to enable coupling of the Force into a single, distributed AAW 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 AAW operations. 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 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 Line (DNMFL); Force Threat Evaluation Weapons Assignment (FTEWA); and the prototype Area Air Defense Commander (AADC) capability. Short and long term objectives will be phased in to produce higher degrees of ship defense and battle coordination and effectiveness.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

(U) FY00 ACCOMPLISHMENTS:

- (U) (\$1.331) Continued concept development of advanced air defense command and control capabilities, including development of concepts to support CAP/SAM coordination, Joint Fires airspace coordination, coordinated cooperative engagements, and advanced air defense capabilities, including Upper Tier Systems.
- (U) (\$0.852) Provided support for landbased and at-sea experiments of advanced Command and Control systems to evaluate air defense concepts and capabilities, including multi-TADIL operations, and air defense operations.

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**Exhibit R-2a, RDT&E Project Justification**

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EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>JUNE 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N BA4</b>	PROGRAM ELEMENT NAME AND NUMBER <b>SHIP SELF DEFENSE 0603755N</b>	PROJECT NAME AND NUMBER Force AAW Coordination Technology K2184
<p>(U) FY00 ACCOMPLISHMENTS Continued:</p> <ul style="list-style-type: none"><li>- (U) (\$1.000) Developed concepts and capabilities to support the integration of Multi-TADIL and cooperative engagement networks across Joint air defense systems, improve Navy and Joint Link interoperability.</li><li>- (U) (\$0.150) Provided top-level programmatic support, technical analysis, and assist in the development of processes, procedures, and documentation that impacted the execution of the FACT program requirements.</li><li>- (U) (\$3.398) Developed concepts and defined requirements for detection, control and engagement of time sensitive targets beyond the Fire Support Coordination Line (FSCL).</li></ul> <p>U) FY01 PLAN:</p> <ul style="list-style-type: none"><li>- (U) (\$1.173) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.</li><li>- (U) (\$0.806) Support landbased and at-sea experiments of advanced Command and Control systems, and conduct analysis to evaluate air defense concepts and capabilities to evaluate capabilities, including multi-TADIL operations, and air defense operations.</li><li>- (U) (\$0.150) Provided top-level programmatic support, technical analysis, and assist in the development of processes, procedures, and documentation that impact the execution of the FACT program requirements.</li><li>- (U) (\$1.000) Develop concepts and capabilities to support the integration of Multi-TADIL and cooperative engagement networks across Joint air defense systems, improve Navy and Joint Link interoperability.</li><li>- (U) (\$4.421) Develop concepts and define requirements for detection, control and engagement of time sensitive targets beyond the Fire Support Coordination Line (FSCL).</li></ul> <p>(U) FY02 PLAN:</p> <ul style="list-style-type: none"><li>- (U) (\$5.173) Development of the Joint Targeting, Attack and Assessment Capability (JTAAC). Test the basic JTAAC prototype at JHU/APL and refine it as necessary.</li><li>- (U) (\$0.850) Support land based and at-sea experiments of advanced Command and Control systems, and conduct analysis to evaluate air defense concepts and capabilities, including multi-TADIL operations and air defense operations.</li><li>- (U) (\$0.150) Provide top-level programmatic support, technical analysis, and assist in the development of processes, procedures, and documentation that impact the execution for the FACT program requirements.</li></ul>		

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**Exhibit R-2a, RDT&E Project Justification**  
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EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>JUNE 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDTE, N BA4</b>	PROGRAM ELEMENT NAME AND NUMBER <b>SHIP SELF DEFENSE 0603755N</b>	PROJECT NAME AND NUMBER Force AAW Coordination Technology K2184
<p>B. Other Program Funding Summary: Not Applicable</p> <p>C. Acquisition Strategy: Not Applicable</p> <p>D. Schedule Profile: Not Applicable</p>		

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**Exhibit R-2a, RDT&E Project Justification**  
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Exhibit R-3 Cost Analysis (page 1)								DATE: <b>JUNE 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
<b>RDT&amp;E, N BA4</b>			<b>SHIP SELF DEFENSE 0603755N</b>			Force AAW Coordination Technology K2184						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	CPFF	APL/LAUREL, MD	58.248	6.431	11/99	5.405	11/00	5.173		CONT.	CONT	
Systems Engineering		SPAWAR, S.D.	0.150							0.000	0.150	
Systems Engineering		SPAWAR, NORFOLK	0.417							0.000	0.417	
Systems Engineering		PUGET SOUND BOSTON	0.029							0.000	0.029	
Tooling												
GFE												
Award Fees												
Subtotal Product Development			58.844	6.431		5.405		5.173		CONT.	CONT	
Remarks:												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support		NSWC/PHD	0.175							0.000	0.175	
Integrated Logistics Support		NSLC MECH. PA	0.005							0.000	0.005	
Integrated Logistics Support	GSA	AMERIND	0.111							0.000	0.111	
Configuration Management												
Technical Data		NSWC/DD, DAHLGREN, VA		0.150	01/00					0.000	0.150	
GFE												
Subtotal Support			0.291	0.150		0.000		0.000		0.000	0.441	
Remarks:												

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**Exhibit R-3, Project Cost Analysis**  
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Exhibit R-3 Cost Analysis (page 2)								DATE: <b>JUNE 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
<b>RDT&amp;E, N BA4</b>			<b>SHIP SELF DEFENSE 0603755N</b>			Force AAW Coordination Technology K2184						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
Operational Test & Evaluation	CPFF	APL/LAUREL, MD				0.806		0.850		CONT.	CONT.	
Tooling												
GFE												
Subtotal T&E			0.000	0.000		0.806		0.850		CONT.	CONT.	
Remarks:												
Contractor Engineering Support	CPAF	RGE, SPRINGFIELD, VA	0.006							0.000	0.006	
Contractor Engineering Support	CPFF	SPA, FAIRFAX, VA	0.100							0.000	0.100	
Contractor Engineering Support	CPFF	LOGICON,FALLS CHUR, VA	0.060							0.000	0.060	
Contractor Engineering Support	GSA	STRATEGIC INSIGHT, VA				0.189						
Program Management Support	GSA	DSR, FAIRFAX, VA		0.150	04/00	0.150	11/00	0.150		CONT.	CONT.	
Travel												
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.166	0.150		0.339		0.150		CONT.	CONT.	
Remarks:												
Total Cost			59.301	6.731		6.550		6.173		CONT.	CONT.	CONT.
Remarks:												

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**Exhibit R-3, Project Cost Analysis**  
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EXHIBIT R-2a, RDT&E Project Justification								DATE:		<b>JUNE 2001</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N BA4</b>		PROGRAM ELEMENT NAME AND NUMBER <b>SHIP SELF DEFENSE 0603755N</b>				PROJECT NAME AND NUMBER Quick Reaction Combat Capability/Requirements and Analysis Working Group/22133					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost	
Project Cost	<b>2.897</b>	<b>0.000</b>	<b>2.180</b>						<b>CONT.</b>	<b>CONT.</b>	
RDT&E Articles Qty											
<p>A. Mission Description and Budget Item Justification: Quick Reation 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. The funding for the Self Defense Test Ship is for the dry-docking and overhaul of the Self Defense Test Ship to extend the service life for another 4 years. 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.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2000 ACCOMPLISHMENTS: (U) (2.897) Provided dry-docking and overhaul of the Self Defense Test Ship.</p> <p>2. (U) FY 2001 PLAN: Not Applicable.</p> <p>3. (U) FY 2002 PLAN: (U) (2.180) The RAWG will provide independent analysis for a variety of combat system trade-offs, ship class performance studies, and force protection strategic plan development.</p> <p>B. Other Program Funding Summary: Not Applicable</p> <p>C. Acquisition Strategy: Not Applicable</p> <p>D. Schedule Profile: Not Applicable</p>											

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**Exhibit R-2a, RDT&E Project Justification**  
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Exhibit R-3 Cost Analysis (page 1)								DATE: <b>JUNE 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
<b>RDT&amp;E, N BA4</b>			<b>SHIP SELF DEFENSE 0603755N</b>			Quick Reaction Combat Capability/Requirements and Analysis Working Group/22133						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development												
Ancillary Hardware Development												
Systems Engineering	Various	Various	4.955							0.000	4.955	
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			4.955	0.000		0.000		0.000		0.000	4.955	
Remarks:												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support												
Configuration Management												
Technical Data												
GFE												
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												

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**Exhibit R-3, Project Cost Analysis**  
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Exhibit R-3 Cost Analysis (page 2)								DATE: <b>JUNE 2001</b>				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N BA4</b>			PROGRAM ELEMENT <b>SHIP SELF DEFENSE 0603755N</b>			PROJECT NAME AND NUMBER Quick Reaction Combat Capability/Requirements and Analysis Working Group/22133						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation		Various	4.732	2.897		0.000		2.180		CONT.	CONT.	
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			4.732	2.897		0.000		2.180		CONT.	CONT.	
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support				0.000		0.000				CONT.	CONT.	
Travel												
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.000	0.000		0.000		0.000		CONT.	CONT.	
Remarks:												
Total Cost			9.687	2.897		0.000		2.180		CONT.	CONT.	CONT.
Remarks:												

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**Exhibit R-3, Project Cost Analysis**  
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