

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2002																											
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA 4				R-1 ITEM NOMENCLATURE Ship Self Defense/0603755N																													
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost																								
Total PE Cost	6.232	9.270	5.930	5.420	5.684	4.886	4.095	CONT.	CONT.																								
QRCC/RAWG 22133	0.000	2.161	2.054	2.369	2.473	2.366	2.567	CONT.	CONT.																								
Force AAW Coord. Tech. (FACT)/ K2184/(K9050)*	6.232	7.109	3.876	3.051	3.211	2.520	1.528	CONT.	CONT.																								
Quantity of RDT&E Articles																																	
<p>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 individual ships 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 individual ship 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.</p>																																	
<p>B. (U) Program Change Summary</p> <table border="0"> <thead> <tr> <th></th> <th>FY 2001</th> <th>FY 2002</th> <th>FY 2003</th> </tr> </thead> <tbody> <tr> <td>FY 2002 President's Budget Submit:</td> <td>6.610</td> <td>8.353</td> <td></td> </tr> <tr> <td>Appropriated Value</td> <td>6.564</td> <td>9.353</td> <td></td> </tr> <tr> <td>Adjustments to FY2001/2002</td> <td>-0.332</td> <td>-0.083</td> <td></td> </tr> <tr> <td>Appropriated Value/FY2002 President's Budget:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY 2003 Pres Budget Submit</td> <td>6.232</td> <td>9.270</td> <td>5.930</td> </tr> </tbody> </table> <p>Funding: FY01: FY01 changes are a result of Small Business Innovative Research (SBIR) reduction (-\$0.173), and minor pricing adjustments (-\$0.159). FY02: FY02 changes are a result of a Congressional Plus Up (\$1.0) and minor pricing adjustments (\$.083) * Includes Congressional Plus Up</p>											FY 2001	FY 2002	FY 2003	FY 2002 President's Budget Submit:	6.610	8.353		Appropriated Value	6.564	9.353		Adjustments to FY2001/2002	-0.332	-0.083		Appropriated Value/FY2002 President's Budget:				FY 2003 Pres Budget Submit	6.232	9.270	5.930
	FY 2001	FY 2002	FY 2003																														
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EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2002			
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/K9050					
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	6.232	7.109	3.876	3.051	3.211	2.520	1.528	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 that 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) FY01 ACCOMPLISHMENTS:

- (U) (\$0.704) Supported landbased and at-sea experiments of advanced Command and control systems, and conduct analysis to evaluate air defense concepts to evaluate capabilities, including multi-Tactical Data Information Link (TADIL) operations, and air defense operations.

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2002
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/K0950

FY01 ACCOMPLISHMENTS Continued:

- (U) (\$0.329) 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.
- (U) (\$0.889) 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.
- (U) (\$4.310) Developed concepts and define requirements for detection, control and engagement of time sensitive targets beyond the Fire Support Coordination Line (FSCL).

U) FY02 PLAN:

- (U) (\$5.146) Development of the Joint Targeting, Attack and Assessment capability (JTAAC). Test the basic JTAAC prototype at Johns Hopkins University/Applied Physics Lab (JHU/APL) and refine it as necessary.
- (U) (\$0.822) 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.
- (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.
- (U) (\$0.991) Transportable Anti-Intrusion Pontoon Barrier Systems

(U) FY03 PLAN:

- (U) (\$2.893) Demonstrate the JTAAC at sea aboard the 3rd FLT flagship and ashore at JHU/APL. Use feedback to develop advanced JTAAC concepts and refine JTAAC requirements.
- (U) (\$0.833) 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.
- (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.

R-1 SHOPPING LIST - Item No. 81-3 of 81-9

Exhibit R-2a, RDT&E Project Justification
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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2002
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/K9050
B. Other Program Funding Summary: Not Applicable		
C. Acquisition Strategy: Not Applicable		
D. Schedule Profile: Not Applicable		

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N BA4			SHIP SELF DEFENSE 0603755N			Force AAW Coordination Technology K2184/K9050						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	CPFF	APL/LAUREL, MD	64.769	5.199	11/1/100	5.146	11/01	3.726	11/02	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	
Anti-Intrusion Barrier		UNKNOWN	0.000	0.000	N/A	0.991	UNKNOWN	0.000		0.000	0.991	
GFE												
Award Fees												
Subtotal Product Development			65.365	5.199		6.137		3.726		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							0.000	0.150	
GFE												
Subtotal Support			0.441	0.000		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: February 2002			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N BA4			SHIP SELF DEFENSE 0603755N			Force AAW Coordination Technology K2184/K9050						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
Operational Test & Evaluation	CPFF	APL/LAUREL, MD		0.704	11/00	0.822	11/01			CONT.	CONT.	
Tooling												
GFE												
Subtotal T&E			0.000	0.704		0.822		0.000		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	0.140	03/01	0.150	11/01	0.150		CONT.	CONT.	
Travel												
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.316	0.329		0.150		0.150		CONT.	CONT.	
Remarks:												
Total Cost			66.122	6.232		7.109		3.876		CONT.	CONT.	CONT.
Remarks:												

R-1 SHOPPING LIST - Item No. 81-6 of 81-9

Exhibit R-3, Project Cost Analysis
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EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2002				
APPROPRIATION/BUDGET ACTIVITY		SHIP SELF DEFENSE 0603755N			PROJECT NAME AND NUMBER					
RDT&E, N BA4					Quick Reaction Combat Capability/Requirements and Analysis Working Group/22133					
COST (\$ in Millions)		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost		0.000	2.161	2.054	2.369	2.473	2.366	2.567	CONT.	CONT.
RDT&E Articles Qty										
<p>A. Mission Description and Budget Item Justification: 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. 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 2001 ACCOMPLISHMENTS: Not Applicable</p> <p>2. (U) FY 2002 PLAN: (U) 2.161) 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>3. (U) FY 2003 PLAN: (U) (2.054) 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-3 Cost Analysis (page 1)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N BA4			PROGRAM ELEMENT SHIP SELF DEFENSE 0603755N			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 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 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 Cost Analysis (page 2)											DATE: February 2002	
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N BA4			SHIP SELF DEFENSE 0603755N			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 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation		Various	7.629	0.000		2.161		2.054		CONT.	CONT.	
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			7.629	0.000		2.161		2.054		CONT.	CONT.	
Remarks: FY 02 is the first year for Requirements and Analysis Working Group (RAWG) Program.												
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			12.584	0.000		2.161		2.054		CONT.	CONT.	CONT.
Remarks:												

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Exhibit R-3, Project Cost Analysis
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