

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2000																							
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE																									
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA 4					Ship Self Defense/0603755N																									
COST (\$ in Millions)		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost																				
Total PE Cost		15.756	8.607	6.610	8.919	9.064	9.270	9.678	CONT.	CONT.																				
QRCC / K2133/U2133/22133		6.863	2.984	0.000	2.166	2.177	2.224	2.471	CONT.	CONT.																				
Force AAW Coord. Tech. (FACT)/ K2184/U2184		8.893	5.623	6.610	6.753	6.887	7.046	7.207	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. 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 1999</th> <th>FY 2000</th> <th>FY 2001</th> </tr> </thead> <tbody> <tr> <td>FY 2000 President's Budget:</td> <td>12.120</td> <td>5.654</td> <td>7.707</td> </tr> <tr> <td>Appropriated Value:</td> <td>12.337</td> <td>8.654</td> <td></td> </tr> <tr> <td>Adjustment to FY 1999/2000 Appropriated Value/ FY 2000 President's Budget:</td> <td>3.419</td> <td>-0.047</td> <td>-1.097</td> </tr> <tr> <td>FY 2001 PRES Budget Submit:</td> <td>15.756</td> <td>8.607</td> <td>6.610</td> </tr> </tbody> </table> <p>Funding: FY99 reductions are due to congressional undistributed reductions of (-\$.547), CVN-68 integration (+\$2.597), BTR of (+\$1.400) and minor pricing adjustments (-\$31). FY2000 decrease due to minor pricing adjustments (-\$0.047). FY 2001 Affordability reduction of (-\$1.000), and other minor pricing adjustments (\$0.097).</p> <p>FY 2000 PLAN: (\$0.611) Portion of extramural program is reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.</p>												FY 1999	FY 2000	FY 2001	FY 2000 President's Budget:	12.120	5.654	7.707	Appropriated Value:	12.337	8.654		Adjustment to FY 1999/2000 Appropriated Value/ FY 2000 President's Budget:	3.419	-0.047	-1.097	FY 2001 PRES Budget Submit:	15.756	8.607	6.610
	FY 1999	FY 2000	FY 2001																											
FY 2000 President's Budget:	12.120	5.654	7.707																											
Appropriated Value:	12.337	8.654																												
Adjustment to FY 1999/2000 Appropriated Value/ FY 2000 President's Budget:	3.419	-0.047	-1.097																											
FY 2001 PRES Budget Submit:	15.756	8.607	6.610																											

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2000			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER			PROJECT NAME AND NUMBER:						
RDT&E, N BA4	SHIP SELF DEFENSE 063755N			FORCE AAW COORDINATION TECHNOLOGY K2184/U2184						
COST (\$ in Millions)		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost		8.893	5.623	6.610	6.753	6.887	7.046	7.207	CONT.	CONT.
RDT&E Articles Qty										
<p>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.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>(U) FY 1999 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$4.815) Continued AADC concept development and evaluation, beginning the integration of air space deconfliction capabilities, Combat Air Patrol (CAP) stationing, and Engage on Remote (EOR). - (U) (\$3.263) Supported DNMFL experiments in IKE Battle Group, USS LaSalle; supported AADC experiments with the AADC prototypes at land based facilities and at-sea (USS SHILOH and MT WHITNEY). - (U) (\$.815) Supported Navy and Joint link interoperability 										

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER	PROJECT NAME AND NUMBER
RDT&E, N BA4	SHIP SELF DEFENSE 0603755N	FORCE AAW COORDINATION TECHNOLOGY K2184/U2184
<p>(U) FY 2000 PLAN:</p> <ul style="list-style-type: none">- (U) (\$1.448) Continue 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) Support 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.- (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.- (U) (\$0.150) Provide 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) (\$2.173) Develop concepts and define requirements for detection, control and engagement of time sensitive targets beyond the Fire Support Coordination Line (FSCL). <p>(U) FY 2001 PLAN:</p> <ul style="list-style-type: none">- (U) (\$0.852) Support 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.- (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.- (U) (\$ 4.758) Develop concepts and define requirements for detection, control and engagement of time sensitive targets beyond the Fire Support Coordination Line (FSCL).		

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER	PROJECT NAME AND NUMBER
RDT&E, N BA 4	SHIP SELF DEFENSE	FORCE AAW COORDINATION TECHNOLOGY K2184/U2184
<p>B. (U) Other Program Funding Summary: Not applicable.</p> <p>C. (U) Acquisition Strategy: Not applicable</p> <p>D. (U) Schedule Profile: Not applicable</p>		

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N BA 4			PROGRAM ELEMENT SHIP SELF DEFENSE 0603755N			PROJECT NAME AND NUMBER : FORCE AAW COORDINATION TECHNOLOGY K2184/U2184						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	CPFF	APL/LAUREL, MD	50.408	7.840	10/98	5.623	10/99	6.610	10/00	CONT.	CONT	
Systems Engineering		SPAWAR, S.D.		0.150	08/99							
Systems Engineering		SPAWAR, NORFOLK		0.417	06/99							
Systems Engineering		PUGET SOUND BOSTON		0.029	04/99							
Tooling												
GFE												
Award Fees												
Subtotal Product Development			50.408	8.436		5.623		6.610		CONT.	CONT	
Remarks:												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support		NSWC/PHD		0.175	08/99							
Integrated Logistics Support		NSLC MECH. PA		0.005	09/99							
Integrated Logistics Support	GSA	AMERIND		0.111	07/99							
Configuration Management												
Technical Data												
GFE												
Subtotal Support			0.000	0.291		0.000		0.000		0.000	0.291	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER:						
RDT&E, N BA4			SHIP SELF DEFENSE 0603755N			FORCE AAW COORDINATION TECHNOLOGY K2184/U2184						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Contractor Engineering Support	CPAF	RGE, SPRINGFIELD, VA		0.006	05/99							
Contractor Engineering Support	CPFF	SPA, FAIRFAX, VA		0.100	09/99							
Contractor Engineering Support	CPFF	LOGICON,FALLS CHUR, VA		0.060	04/99							
Government Engineering Support												
Program Management Support												
Travel												
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.000	0.166		0.000		0.000		0.000	0.166	
Remarks:												
Total Cost			50.408	8.893		5.623		6.610		CONT.	CONT.	CONT.
Remarks:												

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EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2000				
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER				PROJECT NAME AND NUMBER					
RDT&E, N	SHIP SELF DEFENSE 0603755N				Quick Reaction Combat Capability (QRCC)/22133					
COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost	0.000	6.863	2.984	0.000	2.166	2.177	2.224	2.471	CONT.	CONT.
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.</p> <p>1. (U) FY 1999 ACCOMPLISHMENTS: (U) (1.804) Conduct the LPD-17 Analysis of Alternatives including capstone requirement analysis. (U) (2.597) Began systems engineering for the QRCC integration efforts on CVN-68. (U) (2.462) Completed follow-on test and evaluation on Self Defense Test Ship for SSDS MK1.</p> <p>2. (U) FY 2000 PLAN: (U) (2.984) Complete dry-docking and overhaul of the Self Defense Test Ship.</p> <p>3. (U) FY 2001 PLAN: Not Applicable</p> <p>B. Other Program Funding Summary: Not Applicable</p> <p>C. Acquisition Strategy: Not Applicable</p> <p>D. Schedule Profile:</p>										

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N			SHIP SELF DEFENSE 0603755N			Ship Self Defense/22133						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Systems Engineering	Various	Various		4.955						0.000	4.955	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development				4.955		0.000		0.000		0.000	4.955	
Remarks:												
Development Support Equipment											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Subtotal Support				0.000		0.000		0.000		0.000	0.000	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N			SHIP SELF DEFENSE 0603755N			Ship Self Defense/22133						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	PHD NSWC, CA		1.748		2.984				CONT.	CONT.	
Operational Test & Evaluation											0.000	
Tooling											0.000	
GFE											0.000	
Subtotal T&E				1.748		2.984		0.000		CONT.	CONT.	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	CPFF	Various		0.150						CONT.	CONT.	
Travel				0.010							0.010	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management				0.160		0.000		0.000		CONT.	CONT.	
Remarks:												
Total Cost				6.863		2.984		0.000		CONT.	CONT.	CONT.
Remarks:												

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