

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY / BA-5</b>					R-1 ITEM NOMENCLATURE 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	48.089	41.988	24.012	11.584	18.666	20.314	20.752	19.158
0954 Shipboard EW Improvements	38.074	24.525	23.008	10.568	17.630	19.257	19.672	18.057
2190/2441/Nulka Decoy/Nulka Shipsets	7.314	3.894	1.004	1.016	1.036	1.057	1.080	1.101
9243 / Radar Tiles	2.701	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9244 / Surface Ship EW R&D Improvements (SBIR Phase III)		10.107						
9591/ Shipboard Leverage EW System		3.462						
<b>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b> 0954 - The Surface Electronic Warfare Improvement Program (SEWIP) is an evolutionary acquisition and spiral development program of Block upgrades to the AN/SLQ-32(V) family of passive and active shipboard electronic warfare (EW) systems. It replaced the AN/SLY-2(V) Advanced Integrated Electronic Warfare System (AIEWS) program. SEWIP will provide necessary EW capabilities and will incorporate technology advances as they become available to provide incremental upgrades in capability and improvements in performance. Continuous technology reviews will be in progress, potential alternate element and component surveys performed, and ongoing Cost As an Independent Variable (CAIV) efforts will be employed throughout to aid decision-making. Threat system technologies will be examined and compared against program planning to achieve best capability within available resources. The capabilities and subsystems included in Blocks can change as technology matures for integration.  2190/2441 - The Offboard Active Decoy (NULKA) is a joint cooperative program between the United States and Australia that developed an active offboard decoy that utilizes a broadband radio frequency repeater mounted atop a hovering rocket. NULKA is designed to counter a wide variety of present and future radar guided Anti-Ship Missiles (ASMs) by radiating a large radar cross section while flying a ship-like trajectory. The United States developed the electronic payload and fire control system, while Australia developed the hovering rocket. Currently NULKA is undergoing a P3I program to integrate the Mk 53 Decoy Launching System with Ship Self Defense System (SSDS) and the ship combat systems, maintain electromagnetic compatibility with shipboard emitters, integrate with future electronic warfare system upgrades, and to upgrade the Inertial Measurement Unit (IMU).  9243 - OUTLAW BANDIT is a ship signature reduction program, applying radar absorbent material (RAM) to selected areas of a ship's equipment, superstructure, and weapons systems. Passive Counter Measures System (PCMS) enhances ship survivability when used in conjunction with AN/SLQ-32 AND Decoys.  9244 - FY05 Congressional Add of \$10.2M for Surface ship electronic warfare (EW) R&D Improvements (Note: only for Surface Ship EW SBIR Phase III improvements.)  9591 - FY05 Congressional Add of \$3.5M for Shipboard Leveraged Electronic Warfare System (SLEWS)								

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Exhibit R-2, RD TEN Budget Item Justification  
(Exhibit R-2, page 1 of 25)

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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)				PROJECT NUMBER AND NAME 0954/9244/9591 Shipboard EW Improvements			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	38.074	38.094	23.008	10.568	17.630	19.257	19.672	18.057
RDT&E Articles Qty								

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

The Surface Electronic Warfare Improvement Program (SEWIP) is an evolutionary acquisition and spiral development program of Block upgrades to the AN/SLQ-32(V) family of passive and active shipboard electronic warfare (EW) systems. It replaced the AN/SLY-2(V) Advanced Integrated Electronic Warfare System (AIEWS) program. SEWIP will provide necessary EW capabilities and will incorporate technology advances as they become available to provide incremental upgrades in capability and improvements in performance. Continuous technology reviews will be in progress, potential alternate element and component surveys performed, and ongoing Cost As an Independent Variable (CAIV) efforts will be employed throughout to aid decision-making. Threat system technologies will be examined and compared against program planning to achieve best capability within available resources. The capabilities and subsystems included in Blocks can change as technology matures for integration.

The initial SEWIP plan (Block 1, ACAT II) is segmented into 3 sub-blocks: 1A, 1B and 1C. Block 1A is for SLQ-32 sustainment by updating the display console and display/pulse-processing computers, allowing the system to more quickly identify threats and better display the information to the operator. The new display console and processing computers will partially open the system architecture to support subsequent block upgrades. Block 1A began at-sea testing in FY04 and to go into production in FY05. Block 1B currently adds Specific Emitter Identification (SEI) via integration of stand-alone Small Ship Electronic Support Measures (SS ESM), and display of combat systems tracks to the operator to improve threat correlation and situational awareness. Block 1B could add other capabilities if they mature in time. Block 1B is planned to begin at-sea testing in FY05. Block 1C currently will add initial High Gain High Sensitivity (HGHS) capability to SEI, and will allow the operator to launch both Nulka and passive on combat systems tracks, thereby improving effectiveness. Block 1C is planned to begin at-sea testing before the end of the FYDP.

The next Block upgrade (Block 2) will lay the groundwork for more significant improvements; including a major receiver upgrade to improve system sensitivity, provide precision measurement of Angle of Arrival, and improve Electromagnetic Interference (EMI) immunity. Block 3 will significantly improve the Electronic Attack (EA) capabilities of the SLQ-32; Block 4 will add an Infrared (IR) jamming capability.

FY04 funding includes 2 Congressional Adds: \$2M for Shipboard EW Protect, and \$11.9M for Surface Ship EW SBIR Phase III Research and Development improvements.

FY05 funding includes 2 Congressional Adds: \$3.5M for Shipboard Leverage Electronic Warfare System (SLEWS), and \$10.2M for Surface Ship EW SBIR Phase III Research and Development improvements.

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### B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.334	1.400	0.805	0.370
RDT&E Articles Quantity				

The Surface Electronic Warfare Improvement Program (SEWIP) is an evolutionary acquisition and spiral development program of Block upgrades to the AN/SLQ-32(V) family of passive and active shipboard electronic warfare (EW) systems. The program will incorporate technology advances as they become available to provide incremental upgrades in capability and improvements in performance. Continuous technology reviews, potential alternate element and component surveys, and ongoing Cost As an Independent Variable (CAIV) efforts will be used throughout to aid decision-making. Threat system technologies will be examined and compared against program planning to achieve best capability within available resources to rapidly deliver affordable, sustainable capability to the warfighter that meets the warfighter's needs. This includes funding studies and analysis of other service capabilities and future capabilities for interoperability.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	10.914	4.633	0.000	0.000
RDT&E Articles Quantity				

Block 1A includes development of Electronic Support Enhancements (ESE) and Improved Control and Display (ICAD). This enhanced functionality increases Anti-Ship Missile Defense (ASMD) capabilities, allowed for proper identification of Anti Ship Missile threats, and increased the system's ability to handle the significantly increased emitter density. ICAD will provide the tools necessary to significantly improve tactical performance and battle readiness by processing information rapidly through predetermined automation routines. Integrate and test ESE, ICAD, and Block 1A. Conduct preliminary and operational assessment at-sea for integrated ESE and ICAD (Block 1A) Transition ESE and ICAD to production. Prepare for a limited rate production decision for ICAD. Lab/Field activity support included.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	13.333	14.792	10.123	5.892
RDT&E Articles Quantity				

The Systems Integrator contract is currently performing system level technical design, technical coordination, integration, and testing of SEWIP. The System Integrator is responsible for developing the overall technical roadmap for SEWIP, including the detailed technical plan for each block upgrade. The System Integrator will perform any required CAIV analysis, develop overall technical performance requirements, perform system level functional allocations, coordinate the execution of the block upgrades. The System Integrator is responsible for the overall integration of the portions of the system and performing element testing as well as system level performance testing.

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EXHIBIT R-2a. RDT&E Project Justification		DATE: <b>February 2005</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)	PROJECT NUMBER AND NAME 0954/9244/9591 Shipboard EW Improvements

**B. Accomplishments/Planned Program (Cont.)**

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	7.220	10.728	4.817	0.000
RDT&E Articles Quantity				

Block 1B development currently includes Specific Emitter Identification (SEI) by integrating the existing Small Ship ESM (SSES) system with SEWIP and the incorporation of High Gain High Sensitivity (HGHS-F1) capability . It also includes the transfer of CS tracks to the EW system to enhance the display of combat systems tracks in order to improve classification and situational awareness. Block 1B could add other capabilities if they mature in time. Task include the Integration and test Block 1B efforts. Transition Block 1B to production. Lab/Field activity support included. Development for related CS track data usage, RDDDL,HGHS, DPU/DTU, ICAD Upgrades and LAMPS Interface Upgrades.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.051	0.946	5.998	3.725
RDT&E Articles Quantity				

Block 1C currently includes the incorporation of High Gain High Sensitivity (HGHS-Full) capability, the ability for the operator to launch Nulka on combat systems tracks, the adaptation of SEWIP to work on carriers, and the modifications of ICAD to operate with on-board active countermeasures. RDDDL development, ILS engineering, CONOPS and related engineering development are a part of Block 1C. ICAD Phase II, requirements definition , specifications, and development, DPU/DTU upgrades for V4 ships. These efforts include CONOPS development, specification development, contracts preparation, testing and materials., DDI refresh, PW measurement enhancements. LAMPS interface upgrade concept development will be included. IRS/IDD development, SW development and factory testing are also included. Lab/Field activity support included.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.222	2.095	1.265	0.581
RDT&E Articles Quantity				

Program office and Systems Engineering of SEWIP program includes contract management, field activity management, risk management, SBIR employment, M&S, cost estimates, development of program requirements, acquisition, logistics and other documentation (ORD & Capabilities Documents, TEMP, AP, SAMP, CMP, ILSP, NTSP,PLCCE, APB, etc) to meet statutory and regulatory requirements.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.000	3.500	0.000	0.000
RDT&E Articles Quantity				

Receiver Replacement Studies, which includes the Shipboard Leverage Electronic Warfare System.

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<p><b>C. PROGRAM CHANGE SUMMARY:</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Funding:</th> <th style="text-align: right; width: 15%;">FY 2004</th> <th style="text-align: right; width: 15%;">FY 2005</th> <th style="text-align: right; width: 15%;">FY 2006</th> <th style="text-align: right; width: 15%;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>FY05 President's Budget</td> <td style="text-align: right;">43.637</td> <td style="text-align: right;">25.784</td> <td style="text-align: right;">14.526</td> <td style="text-align: right;">10.554</td> </tr> <tr> <td>FY06 President's Budget</td> <td style="text-align: right;">38.074</td> <td style="text-align: right;">38.094</td> <td style="text-align: right;">23.008</td> <td style="text-align: right;">10.568</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-5.563</td> <td style="text-align: right; border-top: 1px solid black;">12.310</td> <td style="text-align: right; border-top: 1px solid black;">8.482</td> <td style="text-align: right; border-top: 1px solid black;">0.014</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td>    SBIR/STTR Transfer</td> <td style="text-align: right;">-0.844</td> <td></td> <td></td> <td></td> </tr> <tr> <td>    Inflation</td> <td style="text-align: right;">-0.040</td> <td></td> <td></td> <td></td> </tr> <tr> <td>    Execution Realignments</td> <td style="text-align: right;">-4.603</td> <td></td> <td></td> <td></td> </tr> <tr> <td>    Cancelled Accounts Liability</td> <td style="text-align: right;">-0.076</td> <td></td> <td></td> <td></td> </tr> <tr> <td>    Various Program Adjustments</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">12.310</td> <td style="text-align: right;">8.482</td> <td style="text-align: right;">0.014</td> </tr> <tr> <td>Subtotal</td> <td style="text-align: right; border-top: 1px solid black;">-5.563</td> <td style="text-align: right; border-top: 1px solid black;">12.310</td> <td style="text-align: right; border-top: 1px solid black;">8.482</td> <td style="text-align: right; border-top: 1px solid black;">0.014</td> </tr> </tbody> </table> <p style="margin-top: 20px;">Schedule:</p> <p style="margin-left: 20px;">See attached schedule.</p> <p style="margin-top: 20px;">Technical:</p> <p style="margin-left: 20px;">See attached Schedule</p>					Funding:	FY 2004	FY 2005	FY 2006	FY 2007	FY05 President's Budget	43.637	25.784	14.526	10.554	FY06 President's Budget	38.074	38.094	23.008	10.568	Total Adjustments	-5.563	12.310	8.482	0.014	Summary of Adjustments					SBIR/STTR Transfer	-0.844				Inflation	-0.040				Execution Realignments	-4.603				Cancelled Accounts Liability	-0.076				Various Program Adjustments	0.000	12.310	8.482	0.014	Subtotal	-5.563	12.310	8.482	0.014
Funding:	FY 2004	FY 2005	FY 2006	FY 2007																																																							
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EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>		PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)				PROJECT NUMBER AND NAME 0954/9244/9591 Shipboard EW Improvements				

**D. OTHER PROGRAM FUNDING SUMMARY:**

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Total Complete	Cost
OPN BA-2 AN/SLQ-32(V) (2312)	21.425	18.614	25.053	31.605	32.721	32.392	36.147	35.256	TBD	TBD
O&M,N AN/SLQ-32 (12CR0/1C2C)	1.384	1.413	1.432	1.473	1.507	1.55	1.596	1.644	TBD	TBD
O&M,N AN/SLQ-32 (14DX0/1D4D)	7.460	8.376	4.787	4.423	3.95	4.268	4.432	4.554	TBD	TBD

**E. ACQUISITION STRATEGY:**

The Surface EW Improvement Program (SEWIP) will accomplish Block upgrades based on integrating technology advances and adding functional capabilities in an incremental fashion. Each Block and sub-Block will be developed and contracted in an individual yet coordinated and overlapping fashion. Blocks will be fielded on ships to meet battle group schedule requirements and make best use of available improvements and resources.

**F. MAJOR PERFORMERS:**

Northrop Grumman PRB (Compete) Goleta, CA - ESE development contract  
 GD-AIS Fairfax, VA - System Integrator development contract  
 Lockheed Martin/Eagan MN - Q-70 console modifications  
 Naval Research Laboratory DC - Technical support for development and testing efforts  
 Naval Surface Warfare Center Dahlgren VA - Scenario/Library Testing of ESE, support for all DT/OT events  
 Naval Surface Warfare Center Crane IN - Lead for HW/SW ESE development, support for all DT/OT events, system engineering support for ESE and ICAD

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## CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: <b>February 2005</b>					
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>				PROGRAM ELEMENT 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)				PROJECT NUMBER AND NAME 0954/9244/9591 Shipboard EW Improvements							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Ancillary Hardware Development			151.420										151.420		
ESE Development	SS / FFP	Northrop Grumman	4.618	0.383	03/04							TBD	TBD	TBD	
ESE Development	SS / CPFF	Northrop Grumman		0.471	11/03							TBD	TBD	TBD	
ICAD Development-SBIR Phase III	SS / CPAF	GD-AIS	8.199	2.737	11/03							TBD	TBD	TBD	
System Integrator	SS / CPAF	GD-AIS	8.928	13.333	02/04	14.792	11/04	10.123	11/05	5.892	11/06	TBD	TBD	TBD	
SSESM rehost/HGHS	WX	NRL	1.995	3.337	04/04	4.050						TBD	TBD	N/A	
Q-70 Mods	SS / CPFF	LM-EAGAN	0.813	1.278	06/04							TBD	TBD	TBD	
Subtotal Product Development			175.973	21.539		18.842		10.123		5.892		TBD	TBD		
Remarks:															
Integrated Logistics Support	WX	NSWC Crane, DD, NRL	1.115	1.128	11/03	1.778	11/04	1.500	11/05	0.894	11/06	TBD	TBD	N/A	
Government Engineering Support	WX	NSWC Crane, DD, NRL	3.505	6.686	11/03	7.339	11/04	5.500	11/05	1.741	11/05	TBD	TBD	N/A	
Tech Eng Svcs, Studies & Analyses	WX, MP	Crane, DD, NRL, BAE	1.949	0.935	11/03	3.233	11/04	0.895	11/05	0.595	11/06	TBD	TBD	N/A	
Miscellaneous	WX	NSWC Crane, DD, NRL													
Subtotal Support			6.569	8.749		12.350		7.895		3.230		TBD	TBD		
Remarks:															

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Exhibit R-2, RDTEN Budget Item Justification  
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Exhibit R-3 Cost Analysis (page 2)										DATE: <b>February 2005</b>				
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME								
RDT&E, N / BA-5		0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)				0954/9244/9591 Shipboard EW Improvements								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various	8.958										8.958	
Block 1A Test Planning/T&E Events	WX	NSWC Crane, DD, NRL	4.575	4.882	11/03	2.186	01/05					TBD	TBD	
Block 1B Test Planning/T&E Events	WX	NSWC Crane, DD, NRL	0.614	0.317	11/03	2.302	01/05	2.900	11/05			TBD	TBD	
Block 1C Test Planning/T&E Events										0.200	11/06	TBD	TBD	
												TBD	TBD	
												TBD	TBD	
												TBD	TBD	
Subtotal T&E			14.147	5.199		4.488		2.900		0.200		TBD	TBD	
Remarks:														
Program Management Support	FFP	SEAPORT	22.426	0.429	05/04	1.143	11/04	0.890	11/05	0.595	11/06	TBD	TBD	
Program Management Support	WX	NSWC/Crane & DD, NRL	3.218	2.058	06/04	1.171	11/04	1.100	11/05	0.551	11/06	TBD	TBD	
Travel			0.105	0.100		0.100		0.100		0.100		TBD	TBD	
Subtotal Management			25.749	2.587		2.414		2.090		1.246		TBD	TBD	
Remarks:														
Total Cost			222.438	38.074		38.094		23.008		10.568		CONT	CONT	
Remarks:														

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Exhibit R-4a, Schedule Detail						DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME		
<b>RDT&amp;E, N / BA-5</b>		0604757N SHIP SELF DEFENSE				0954/9244/9591 Shipboard EW Improvement		
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
RDC Approval	4Q							
Stand Alone ESE Development/Integration	1Q-2Q							
ICAD (Integrated ESE & Q-70) Development/Integration	1Q-3Q							
AN/SSX-1 RDC (Stand Alone SEI) Lab Development Transition	1Q-4Q							
SEI (Federated SEI) Development/Integration	1Q-4Q	1Q						
ICAD Improvements (Mission Planning, Display Updates, Embedded Training) Development/Integration	1Q-4Q	1Q-4Q						
HGHS Limited Development/Integration	1Q-4Q	1Q-4Q						
NCWES (Phase I) Development/Integration		1Q-4Q						
ESE Developmental Testing (DT-D2B)	1Q							
Developmental Test Readiness Review (ESE)	2Q							
ESE Developmental Testing (DT-D3)	2Q							
Developmental Test Readiness Review (ICAD)	2Q							
ESE Operational Test Readiness Review	3Q							
ESE Operational Test (OA ) (OT-D1)	3Q							
Stand Alone-ESE Milestone C LRIP		2Q						
ICAD/Q-70 Milestone C LRIP		3Q						
ICAD Operational Test Readiness Review	4Q							
ICAD Operational Test (DT-D4)	4Q	1Q-2Q						
Operational Test Readiness Review (ICAD)		2Q						
ICAD Operational Testing (OA)		2Q						
Operational Test Readiness Review (Block 1A)		3Q						
Block 1A TECHEVAL/OPEVAL	3Q							
ICAD/ESE for V3/4/5 & other ICAD Improvements Development/Integration		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q		
NCWES (Phase II) Development/Integration		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q	
MH-60R Development/Integration		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-3Q	
HGHS (FULL) Development/Integration			3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q
Block 1A FRP		4Q	1Q					
Developmental Test Readiness Review (Block 1B)		4Q						
Block 1B Developmental Test (DT-B1)		4Q	1Q					
Developmental Test Readiness Review (Block 1B)			1Q-2Q					
Block 1B Developmental Test (DT-B2)			2Q					
Operational Test Readiness Review (Block 1B)			2Q-3Q					
Block 1B Operational Test (OA) (OT-B1)			3Q					
Block 1B FRP			4Q	1Q				

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Exhibit R-2, RD TEN Budget Item Justification

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EXHIBIT R4, Schedule Profile																												DATE: February 2005				
APPROPRIATION/BUDC PROGRAM ELEMENT NUMBER AND NAME														PROJECT NUMBER AND NAME																		
RDT&E, N / 0604757N SHIP SELF DEFENSE														0954/9244/9591 Shipboard EW Improvements																		
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	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				
Acquisition Milestones		RDC Approval		▲	SA-ESE MS C/ LRIP		△	△	ICAD (Q-70) C/ LRIP		△		Block 1A FRP				Block 1B FRP															
Block 1 A Development/ Integration	ESE (Stand Alone)				ESE Development/Integration																											
	ICAD				(Integrated ESE & Q-70 Development/Integration)																											
Block 1B Development/ Integration	AN/SSX-1 RDC				(Stand Alone SEI Lab Development Transition)																											
	SEI				(Federated SEI Development/Integration)																											
	ICAD Improvements				(Mission Planning, Display Updates, & Embedded Training Development/Integration)																											
	HGHS Limited Development/Integration																															
	NCWES				(Phase I Development/Integration)																											
Block 1C Development/ Integration					ICAD/ESE for V3/4/5 & other ICAD Improvements Development/Integration																											
					NCWES Phase II Development/Integration																											
					MH-60R Development/Integration																											
					HGHS (FULL) Development/Integration																											
Test & Evaluation Milestones	Test Reviews	▲	▲	▲	▲		△	△	△		△	△	△																			
Development Test	ESE DT-D2B	■	■						Block 1B		■	■																				
Operational Test	OT-D1/OA ESE	■			ICAD		DT-D4		Block 1A TECEVAL/OPEVAL				Block 1B TECEVAL/OPEVAL																			

R-1 SHOPPING LIST - Item No 128

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>		PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)			PROJECT NUMBER AND NAME 9243/Radar Tiles			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	2.701	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty								

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

(u) MISSION DESCRIPTION AND BUDGET ITEM JUTIFICATION: OUTLAW BANDIT is a ship signature reduction program, applying radar absorbent material (RAM) to selected areas of a ship's equipment, superstructure, and weapons systems. PCMS enhances ship survivability when used in conjunction with AN/SLQ-32 AND Decoys.

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>																
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KIL	PROJECT NUMBER AND NAME 9243/Radar Tiles																	
<b>B. Accomplishments/Planned Program</b>																			
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	FY 04	FY05	FY06	FY07															
Accomplishments/Effort/Subtotal Cost	2.701	0.000	0.000	0.000															
RDT&E Articles Quantity																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;"></th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY05</th><th style="width: 15%;">FY06</th><th style="width: 15%;">FY07</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td></td><td></td><td></td><td></td></tr><tr><td>RDT&amp;E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table> <div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>						FY 04	FY05	FY06	FY07	Accomplishments/Effort/Subtotal Cost					RDT&E Articles Quantity				
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Accomplishments/Effort/Subtotal Cost																			
RDT&E Articles Quantity																			
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	FY 04	FY05	FY06	FY07															
Accomplishments/Effort/Subtotal Cost																			
RDT&E Articles Quantity																			

R-1 SHOPPING LIST - Item No. 128

UNCLASSIFIED

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>February 2005</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDTE&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)	PROJECT NUMBER AND NAME 9243 RADAR TILES
<b>C. PROGRAM CHANGE SUMMARY:</b>		
Funding:	FY2004	FY2005
Previous President's Budget (FY05 PB controls):	2.769	0.000
Current President's Budget (PB 06/07 controls):	2.701	0.000
Total Adjustments	-0.068	0.000
Summary of Adjustments		
Inflation	-0.003	
SBIR (9 APR 04)	-0.065	
Subtotal	-0.068	0.000
Schedule:		
Not Applicable.		
Technical:		
Not Applicable.		

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UNCLASSIFIED

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>																																			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>		PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL			PROJECT NUMBER AND NAME 9243/Radar Tiles																																					
<p><b>D. OTHER PROGRAM FUNDING SUMMARY:</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Line Item No. &amp; Name</u></th> <th><u>FY 2004</u></th> <th><u>FY 2005</u></th> <th><u>FY 2006</u></th> <th><u>FY 2007</u></th> <th><u>FY 2008</u></th> <th><u>FY 2009</u></th> <th><u>FY 2010</u></th> <th><u>FY 2011</u></th> <th style="text-align: right;"><u>To Complete</u></th> <th style="text-align: right;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>O&amp;M,N ELECTRONIC WARFARE PE 0728827</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OUTLAW BANDIT</td> <td style="text-align: right;">1.301</td> <td style="text-align: right;">1.367</td> <td style="text-align: right;">1.370</td> <td style="text-align: right;">1.522</td> <td style="text-align: right;">1.597</td> <td style="text-align: right;">1.636</td> <td style="text-align: right;">1.685</td> <td style="text-align: right;">1.734</td> <td></td> <td></td> </tr> </tbody> </table> <p><b>E. ACQUISITION STRATEGY: *</b></p> <p><b>F. MAJOR PERFORMERS: **</b></p>										<u>Line Item No. &amp; Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>	O&M,N ELECTRONIC WARFARE PE 0728827											OUTLAW BANDIT	1.301	1.367	1.370	1.522	1.597	1.636	1.685	1.734		
<u>Line Item No. &amp; Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>																																
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OUTLAW BANDIT	1.301	1.367	1.370	1.522	1.597	1.636	1.685	1.734																																		

R-1 SHOPPING LIST - Item No. 128

UNCLASSIFIED

UNCLASSIFIED

## CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL			9243/Radar Tiles						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY04 Cost	FY04 Award Date	FY05 Cost	FY05 Award Date	FY06 Cost	FY06 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Hardware Development Inc 1											0.000	
Ancillary Hardware Development											0.000	
Software Development											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering	WR/RCP	VARIOUS		2.469							2.469	
Combat Systems Modifications											0.000	
Miscellaneous											0.000	
											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			0.000	2.469		0.000		0.000		0.000	3,251.000	
Development Support											0.000	
Software Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Engineering Services											0.000	
Miscellaneous											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												

R-1 SHOPPING LIST - Item No. 128

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification  
(Exhibit R-2, page 15 of 25)

# UNCLASSIFIED

## CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)									DATE: <b>February 2005</b>			
APPROPRIATION/BUDGET ACTIVITY <b>RDTE, N / BA-5</b>			PROGRAM ELEMENT 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL			PROJECT NUMBER AND NAME 9243/Radar Tiles						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Test Planning/T&E Events											0.000	
Miscellaneous											0.000	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Contractor Engineering Support	CPFF	Anteon		0.100						0.000	0.100	0.070
Government Engineering Support	WR	NSWC/PHD		0.132							0.132	
Program Management Support											0.000	
Travel											0.000	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			0.000	0.232		0.000		0.000		0.000	0.232	
Remarks:												
Total Cost			0.000	2.701		0.000		0.000		0.000	2.701	
Remarks:												

R-1 SHOPPING LIST - Item No. 128

UNCLASSIFIED

Exhibit R-2, RDTE Budget Item Justification  
(Exhibit R-2, page 16 of 25)



# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)				PROJECT NUMBER AND NAME 2190/2441/Nulka Decoy			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	7.314	3.894	1.004	1.016	1.036	1.057	1.080	1.101
RDT&E Articles Qty								

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

The Offboard Active Decoy (NULKA) is a joint cooperative program between the United States and Australia that developed an active offboard decoy that utilizes a broadband radio frequency repeater mounted atop a hovering rocket. NULKA is designed to counter a wide variety of present and future radar guided Anti-Ship Missiles (ASMs) by radiating a large radar cross section while flying a ship-like trajectory. The United States developed the electronic payload and fire control system, while Australia developed the hovering rocket. Currently NULKA is undergoing a P3I program to integrate the Mk 53 Decoy Launching System with Ship Self Defense System (SSDS) and the ship combat systems, maintain electromagnetic compatibility with shipboard emitters, integrate with future electronic warfare system upgrades, and to upgrade the Inertial Measurement Unit (IMU).

FY04 funding includes \$4.9 Congressional Add for Anti-Tamper, Dual RF, Inertial Measure Unit (IMU), EMC, Effectiveness Study, Flyable Cartridge and Engineering Studies.

R-1 SHOPPING LIST - Item N 128

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification  
(Exhibit R-2, page 17 of 25)

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>																
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KIL	PROJECT NUMBER AND NAME 2190/2441/Nulka Decoy																	
<b>B. Accomplishments/Planned Program</b>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 15%; text-align: center;">FY 04</td> <td style="width: 15%; text-align: center;">FY 05</td> <td style="width: 15%; text-align: center;">FY 06</td> <td style="width: 15%; text-align: center;">FY 07</td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">2.356</td> <td style="text-align: center;">0.500</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">0.000</td> </tr> <tr> <td>RDT&amp;E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	2.356	0.500	0.000	0.000	RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	2.356	0.500	0.000	0.000															
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	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	1.044	0.949	0.000	0.338															
RDT&E Articles Quantity																			

R-1 SHOPPING LIST - Item No. 128

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KIL	PROJECT NUMBER AND NAME 2190/2441/Nulka Decoy		
<b>B. Accomplishments/Planned Program</b>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	3.320	1.774	1.004	0.339
RDT&E Articles Quantity				
<div>NULKA decoy subsystem/integration and improvements to include Dual RF, EMC, Effectiveness Studies, Flyable Cartridge, Engineering Studies and Fly Out Tactics.</div>				

R-1 SHOPPING LIST - Item No. 128

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>																																									
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)	PROJECT NUMBER AND NAME 2190/2441/Nulka Decoy																																										
<p><b>C. PROGRAM CHANGE SUMMARY:</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;"></th> <th style="text-align: right; width: 15%;">FY 2004</th> <th style="text-align: right; width: 15%;">FY 2005</th> <th style="text-align: right; width: 15%;">FY 2006</th> <th style="text-align: right; width: 15%;">FY2007</th> </tr> </thead> <tbody> <tr> <td>Funding:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY05 President's Budget</td> <td style="text-align: right;">7.100</td> <td style="text-align: right;">2.449</td> <td style="text-align: right;">0.992</td> <td style="text-align: right;">1.004</td> </tr> <tr> <td>FY06 President's Budget</td> <td style="text-align: right;">7.314</td> <td style="text-align: right;">3.894</td> <td style="text-align: right;">1.004</td> <td style="text-align: right;">1.016</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">0.214</td> <td style="text-align: right; border-top: 1px solid black;">1.445</td> <td style="text-align: right; border-top: 1px solid black;">0.012</td> <td style="text-align: right; border-top: 1px solid black;">0.012</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td>Various Program Adjustments</td> <td style="text-align: right;">0.214</td> <td style="text-align: right;">1.445</td> <td style="text-align: right;">0.012</td> <td style="text-align: right;">0.012</td> </tr> <tr> <td>Subtotal</td> <td style="text-align: right; border-top: 1px solid black;">0.214</td> <td style="text-align: right; border-top: 1px solid black;">1.445</td> <td style="text-align: right; border-top: 1px solid black;">0.012</td> <td style="text-align: right; border-top: 1px solid black;">0.012</td> </tr> </tbody> </table> <p style="margin-top: 20px;">Schedule:</p> <p style="margin-left: 40px;">Not Applicable</p>   <p>Technical:</p> <p style="margin-left: 40px;">Not Applicable</p>						FY 2004	FY 2005	FY 2006	FY2007	Funding:					FY05 President's Budget	7.100	2.449	0.992	1.004	FY06 President's Budget	7.314	3.894	1.004	1.016	Total Adjustments	0.214	1.445	0.012	0.012	Summary of Adjustments					Various Program Adjustments	0.214	1.445	0.012	0.012	Subtotal	0.214	1.445	0.012	0.012
	FY 2004	FY 2005	FY 2006	FY2007																																								
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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>		PROGRAM ELEMENT NUMBER AND NAME 0604757N SHIP SELF DEFENSE			PROJECT NUMBER AND NAME 2190/2441 NULKA DECOY					
<b>D. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY2011</u>	<u>To Complete</u>	<u>Total Cost</u>
OPN: Anti-Ship Missile Decoy System/5530 (In Millions)	50.264	54.518	40.436	57.102	58.524	60.18	61.574	62.535	Continuing	TBD
OMN: 14DX0, 1D4D	2.147	3.142	1.795	1.678	1.579	1.660	1.723	1.769	Continuing	TBD
<b>E. ACQUISITION STRATEGY:</b>										
Not Applicable										
<b>F. MAJOR PERFORMERS:</b>										
NSWC Crane , IN Product Development										
NSWC Dahlgren, VA Product Development										
NRL Washington, DC Product Development										
Sippican Inc, Marion, MA Product Development										
BAeA, Australia Product Development										

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# UNCLASSIFIED

## CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: <b>February 2005</b>					
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>				PROGRAM ELEMENT 0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)						PROJECT NUMBER AND NAME 2190/2441/Nulka Decoy					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Primary Hardware Development	RC	NSWC Crane, IN	3.000										3.000		
	RX	Sippican	1.782	2.450	07/04	0.987	01/05						5.219		
	MIPR	BAES	0.700	2.863	05/04	1.380	11/04			0.295	11/05	Continuing	Continuing		
Ship Suitability															
Systems Engineering	WX	NRL	0.485	0.073	11/03	0.225	10/04	0.502	10/04	0.281	10/05	Continuing	Continuing		
Systems Engineering	WX	NWAD China Lake	0.050	0.020	10/03	0.050	11/04	0.442	10/04	0.050	10/05	Continuing	Continuing		
MK 53 Sys Engineering Change	FFP	Sechan		0.150	08/04										
Systems Engineering	WX	Indian Head		0.044	09/04										
Subtotal Product Development			6.017	5.600		2.642		0.944		0.626		Continuing	Continuing		
Remarks:															
Development Support	WX	NRL	1.214	0.996	11/03	0.622	10/04			0.165	10/05	Continuing	Continuing		
Software Development	WX	NSWC Dahlgren	1.819	0.640	11/03	0.573	10/04			0.165	10/05	Continuing	Continuing		
Training Development															
Integrated Logistics Support															
Configuration Management															
Technical Data															
GFE															
Award Fees															
Subtotal Support			3.033	1.636		1.195		0.000		0.330		Continuing	Continuing		

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Exhibit R-2, RDTEN Budget Item Justification  
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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)									DATE: <b>February 2005</b>					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT						PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N / BA-5</b>			0604757N SHIP SELF DEFENSE (ENGAGE: SOFT KILL)						2190/2441/Nulka Decoy					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation														
Operational Test & Evaluation														
Live Fire Test & Evaluation														
Test Assets														
Tooling														
GFE														
Award Fees														
Subtotal T&E			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Contractor Engineering Support														
Government Engineering Support														
Program Management Support	cc/cpff	Anteon	0.294				11/04					Continuing	Continuing	
Travel			0.233	0.078	various	0.057	various	0.060		0.060		Continuing	Continuing	
Labor (Research Personnel)														
SBIR Assessment														
Subtotal Management			0.527	0.078		0.057		0.060		0.060		Continuing	Continuing	
Remarks:														
Total Cost			9.577	7.314		3.894		1.004		1.016		Continuing	Continuing	
Remarks:														

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CLASSIFICATION:

EXHIBIT R4, Schedule Profile																					DATE:				February 2005										
APPROPRIATION/BUDGET #PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME																							
RDT&E, N / BA-5												0604757N SHIP SELF DEFENSE												2190/2441 NULKA DECOY											
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011						
	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	1	2	3	4			
Acquisition Milestones			▲ FFG Install Certification																																
Production Milestones				EMC Decoy Production / Backfit																			▲ DLP v. 6.4							▲ LHA (R) Install Cert					
				▲									▲ DLP v. 6.3																						
Test & Evaluation Milestones																																			
Development Test		▲ DT-IIID											▲ LPD 17/18 CSSQT									▲ IMU								▲ IMU AT-SEA Test					
Operational Test													▲ LSD 41/50			▲ USCG Deepwater						▲ Land Based Test													
Deliveries																																			
	▲																																		

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**Exhibit R-2, RD TEN Budget Item Justification**  
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