

CLASSIFICATION:**UNCLASSIFIED****EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION**

DATE

February 2008

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

RD TEN/BA 5**0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)**

COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	26.627	38.365	57.574	21.842	20.704	20.493	20.884
0954 / Shipboard EW Improvement Program	13.229	27.714	54.546	19.799	18.150	18.508	18.871
2190 / NULKA Decoy	3.949	5.868	3.028	2.043	2.554	1.985	2.013
9999 / CONGRESSIONAL ADD	9.449	4.783	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION:

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. 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 - 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 program to integrate the Mk 53 Decoy Launching System with Ship Self Defense System (SSDS) and an upgrade to counter emerging threats.

FY07 Congressional Adds: NULKA Decoy System, Advanced Radar Absorbing Tile for Surface Ships, Shipboard Electronic Warfare Improvement Program, SLQ-32 ESM System Interference Cancellation.

FY08 Congressional Adds: 9999 EW Concept Demonstrator for LCS of \$.797; 9999 Advanced Radar Absorbing Tile for Surface Ships for \$ 1.993; Congressional adjustment for \$1.993

CLASSIFICATION:**UNCLASSIFIED****EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION (CONTINUATION)**

DATE

February 2008

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

RD TEN/BA 5**0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)****B. PROGRAM CHANGE SUMMARY:**

Funding:	FY 2007	FY 2008	FY 2009
FY 2008 President's Budget	21.133	34.323	37.869
FY 2009 President's Budget	26.627	38.365	57.574
Total Adjustments	5.494	4.042	19.705
Summary of Adjustments			
Program Adjustments	6.000	0.000	20.015
Congressional Adds	0.000	4.783	0.000
Undistributed General Increases	0.000	0.000	0.006
Undistributed General Reductions	-0.506	-0.741	-0.316
Subtotal	5.494	4.042	19.705

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)			PROJECT NUMBER AND NAME 0954/Shipboard EW Improvement Program		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	13.229	27.714	54.546	19.799	18.150	18.508	18.871
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Surface Electronic Warfare Improvement Program (SEWIP) is an evolutionary acquisition program of incremental upgrades to the AN/SLQ-32(V) family of passive and active shipboard electronic warfare (EW) systems. SEWIP will provide necessary EW capabilities and will incorporate technology advances as they become available to provide incremental capability upgrades and improvements in performance. Continuous technology in progress reviews, potential alternate element and component surveys, and ongoing Cost As an Independent Variable (CAIV) efforts will be performed and employed throughout the program 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 can change as technology matures for integration.

SEWIP Block 1 is segmented into Block 1A, and Block 1B. Block 1A upgrades the SLQ-32 display console and pulse-processing computers, allowing the system to more quickly identify threats and better display the information to the operator. The new Improved Control and Display (ICAD) Human System Interface (HSI) console, and the new Electronic Surveillance Enhancements (ESE) pulse processing computers will partially open the electronic warfare system architecture to support subsequent EW capability upgrades. Block 1A is in production with the FRP decision provided August 2006. Block 1B adds Specific Emitter Identification (SEI) in a stand-alone configuration (1B1), and as a fully ICAD-integrated configuration (1B2). Block 1B also adds High Gain High Sensitivity (HGHS) (1B3) to improve threat correlation and situational awareness. Block 1B SEI (1B1 and 1B2) is scheduled to begin at-sea DT/OT testing in FY08. Block 1B HGHS (1B3) is scheduled to begin at-sea DT/OT testing in FY11.

Through efforts formerly reported as Block 1C, ESE and ICAD development will be extended to ships with active variants of SLQ-32 (that is, (V)3 and (V)4). AN/SLQ-32V(4) Electronic Surveillance Enhancements upgrades (V(4) ESE) provides proven Block 1A (V)3 ESE processing adapted to the aircraft carrier variant of SLQ-32. Improved Control and Display (ICAD) for AN/SLQ-32 V(3/4) provides ICAD for both active EW system variants.

SEWIP Block 2 is expected to be a separate ACAT II program to develop an upgraded antenna and receiver for SLQ-32. The upgrades are necessary in order to pace the threat, improving detection and accuracy as well as improving mitigation of Electromagnetic Interference (EMI).

CLASSIFICATION:		UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)	PROJECT NUMBER AND NAME 0954/Shipboard EW Improvement Program	
B. ACCOMPLISHMENTS/PLANNED PROGRAM:			
	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	10.308	9.909	4.785
RDT&E Articles Quantity	0	0	0
Block 1B1/1B2 SEI. Transitions stand alone Specific Emitter Identification (SEI) RDC under formal acquisition as directed and adds 1B1 ECPs configuration updates. Provides integrated SEI improvements to the Improved Control and Display (ICAD) with display upgrades and Network Centric Warfare Electronic Support (NCWES) - all added capability to the AN/SLQ-32B(V) System. System enhancements notably increase Anti-Ship Missile Defense (ASMD), by increasing the confidence of the situational awareness of the Electronic Warfare (EW) environment for a ship or strikegroup. ICAD improvements provide reduced workload for the operator with Human Systems Interface (HSI) enhancements, Mission Planning capability, and Embedded Training to improve operator proficiency. SEI provides a high confidence means of identifying contacts of interest within the operating area. NCWES provides a direct link to off-board information to enhance the awareness of the AN/SLQ-32 operator. The final upgraded system has completed Factory Qualification Testing, land based developmental testing, and is scheduled to begin combined developmental and operational test and evaluation (TECHEVAL and OPEVAL) at-sea in FY08 to support a Full Rate Production decision for SEI (1B1/1B2).			
	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	2.921	8.218	17.245
RDT&E Articles Quantity	0	0	0
Block 1B3 builds off the foundation of the 1B2-enhanced AN/SLQ-32B(V) system and significantly increases warfighting capability with the addition of the High Gain High Sensitivity (HGHS)). HGHS provides improved situational awareness and early warning capability against Anti-Ship Missiles. HGHS technology will be matured through System Development and Demonstration (SDD) and integrated with SLQ-32 through ICAD, culminating in planned at-sea operational testing in 2011.			
	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	4.758	4.586
RDT&E Articles Quantity	0	0	0
Through efforts formerly reported as Block 1C, ESE and ICAD development will be extended to ships with active variants of SLQ-32 (that is, (V)3 and (V)4). AN/SLQ-32 V(4) Electronic Surveillance Enhancements upgrades (V(4) ESE) provides proven Block 1A (V)3 ESE processing adapted to the aircraft carrier variant of SLQ-32. Improved Control and Display (ICAD) for AN/SLQ-32 V(3/4) provides ICAD for both active EW system variants.			
	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	4.829	27.930
RDT&E Articles Quantity	0	0	0
SEWIP Block 2 provides an upgraded receiver, antenna, and combat system interface for SLQ-32. This upgrade is applicable to both forward fit (e.g., DDG-1000 and CVN 78) and back-fit ships. This upgrade will greatly improve the Navy's Surface Electronic Warfare (EW) capabilities against emerging threats, as well as better integrate EW capabilities into the combat direction/management system. This effort consists of transitioning technology developed by the Office of Naval Research into SDD. At-sea testing is planned to be coincident with that for DDG-1000. Effort in FY08 will lead to contract award in early FY09 for a base Engineering Development Model (EDM) design effort.			

CLASSIFICATION:**UNCLASSIFIED****EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)**

DATE

February 2008

APPROPRIATION/BUDGET ACTIVITY

RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME

0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)

PROJECT NUMBER AND NAME

0954/Shipboard EW Improvement Program**C. OTHER PROGRAM FUNDING SUMMARY:**

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
OPN BA-2 AN/SLQ-32(V)2312)	25.682	29.656	29.280					CONT	CONT
O&M,N AN/SLQ032 (12CR0/1C2C)	6.206	5.147	5.697					CONT	CONT

D. 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 strike group schedule requirements and make best use of available improvements and resources.

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE		
										February 2008		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 5		0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)					0954/Shipboard EW Improvement Program					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Ancillary Hardware Development			151.420	0.000		0.000		0.000		0.000	151.420	0.000
ESE Development (Block 1A)	SS / FFP	Northrop Grumman	5.001	0.000		0.000		0.000		TBD	5.001	0.000
ICAD Development-SBIR Phase III (Block 1A)	SS / CPFF	GD-AIS	11.747	0.000		0.000		0.000		TBD	11.747	0.000
ESE Development (Block 1A)	SS / CPFF	Northrop Grumman	0.471	0.000		0.000		0.000		TBD	0.471	0.000
System Integrator	SS / CPAF	GD-AIS	10.427	1.126	JAN-07	1.722	NOV-07	2.612	NOV-08	TBD	CONT	0.000
1B Development	SS / CPAF	GD-AIS	39.627	4.423	NOV-06	10.021	NOV-07	12.651	NOV-08	TBD	CONT	0.000
1C Development	TBD	Northrop Grumman	0.000	0.000		2.275	NOV-07	1.988	NOV-08	TBD	CONT	0.000
Q-70 Mods	SS / CPFF	LM-EAGAN	3.491	0.000		0.000		0.000		TBD	CONT	0.000
Block 2 Study/Development	MIPR/CPIF	BAE & Others	0.336	0.000		2.560	NOV-07	20.198	NOV-08	TBD	CONT	0.000
Subtotal Product Development			222.520	5.549		16.578		37.449		CONT	CONT	0.000
Remarks:												
Integrated Logistics Support	WR	NSWC Crane, DD, NRL	7.893	0.927	JAN-07	1.091	NOV-07	1.237	NOV-08	TBD	CONT	0.000
Government Engineering Support	WR	NSWC Crane, DD, NRL	27.985	1.756	NOV-06	3.448	NOV-07	5.297	NOV-08	TBD	CONT	0.000
Integration and Test	WR	NSWC Crane, DD, NRL	0.605	0.248	JAN-07	0.854	NOV-07	1.090	NOV-08	TBD	CONT	0.000
TTP & Producibility	WR	NSWC Crane, DD, NRL	0.000	0.000		0.177	NOV-07	0.000		TBD	CONT	0.000
Subtotal Support Costs			36.483	2.931		5.570		7.624		CONT	CONT	0.000
Remarks:												
Developmental Test & Evaluation	Various	Various	8.958	0.000		0.000		0.000		0.000	8.958	0.000
Block 1A Test Planning/T&E Events	WR	NSWC Crane, DD, NRL	11.036	0.000		0.000		0.000		0.000	11.036	0.000
Block 1B Test Planning/T&E Events	WR	NSWC Crane, DD, NRL, NAVAIR, OPTEVFOR, NSWC PHD	4.112	2.586	JAN-07	2.947	NOV-07	2.761	NOV-08	TBD	CONT	0.000
Block 1C Test Planning/T&E Events	WR	NSWC Crane, DD, NRL	0.000	0.000		0.000		1.489	NOV-08	TBD	CONT	0.000
Block 2 Test Planning/T&E Events	WR	NSWC, Crane, DD, NRL	0.000	0.000		0.000		0.501	NOV-08	TBD	CONT	0.000
Subtotal Test and Evaluation			24.106	2.586		2.947		4.751		CONT	CONT	0.000
Remarks:												
Program Management Support	C / FFP	SEAPORT	25.149	1.200	NOV-06	1.200	NOV-07	1.958	NOV-08	TBD	CONT	0.000
Program Management Support	WR	NSWC Crane, DD, NRL	7.892	0.863	NOV-06	1.319	NOV-07	2.564	NOV-08	TBD	CONT	0.000

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)					PROJECT NUMBER AND NAME 0954/Shipboard EW Improvement Program					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Travel	PD	NAVSEA Program Office Travel	0.405	0.100	NOV-06	0.100	NOV-07	0.200	NOV-08	TBD	CONT	0.000
Subtotal Management Services			33.446	2.163		2.619		4.722		CONT	CONT	0.000
Remarks:												
Total Cost			316.555	13.229		27.714		54.546		CONT	CONT	0.000

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-4, SCHEDULE PROFILE

DATE

February 2008

APPROPRIATION/BUDGET ACTIVITY

RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME

0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)

PROJECT NUMBER AND NAME

0954/Shipboard EW Improvement Program

Fiscal Year	2007				2008				2009				2010				2011				2012				2013							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones				Block 1B MS E		Block 1B1/1B2 MS C/FRP													Block 1B3 MS C/FRP													
Block 1B Development/Integration	1B1 SEI Transition				(Stand-alone RDC Transition to 1B1 Acquisition)																											
	1B2 Integrated SEI +				(Mission Planning, Display Updates, & Embedded Training Development/Integration)																											
	1B3 HGHS Development and Integration																															
ESE and ICAD for SLQ-32(V)3/4					V(4) ESE Development, Integration, and Test																											
									ICAD for (V)3/4 Development, Integration and Test																							
Block 2 Development					New Receiver/Antenna/Interface Development																											
Block 1B Test and Evaluation Milestones				DT-B8		DT-B9													DT-B10		DT-B11											
Development Test		DT-B6 & 7																														
Operational Test							OT-B4																OT-B5									

CLASSIFICATION:		UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL						DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)			PROJECT NUMBER AND NAME 0954/Shipboard EW Improvement Program			
Schedule Profile		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
SEI Stand Alone Transition		1Q-4Q	1Q-4Q					
SEI Integrated / ICAD Improvement / NCWES Development and Integration		1Q-4Q	1Q-4Q					
HGHS Development / Integration		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-3Q	
Developmental Test Readiness Review (Block 1B1/1B2)		4Q						
Block 1B1/1B2 Developmental Test (DT-B6/7)		4Q	1Q					
Block 1B MS B decision			1Q					
(V)4 ESE Upgrade Development / Inegration			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q		
New Receiver / Antenna / Interface Development			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Block 1B1/1B2 Developmental Test (DT-B8)			1Q					
Developmental Test Readiness Review (Block 1B1/1B2)			2Q					
Block 1B1/1B2 Developmental Test (DT-B9)			2Q					
Operational Test Readiness Review (Block 1B1/1B2)			2Q					
Block 1B1/1B2 Operational Test (OT) (OT-B4)			2Q					
Block 1B1/1B2 MS C/FRP			4Q					
ICAD for (V)3/4 Development, Integration and Test					3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Block 1B3 Developmental Test (DT-B10)					4Q			
Developmental Test Readines Review (Block 1B3)					4Q			
Block 1B3 Developmental Test (DT-B11)						1Q		
Operational Test Readiness Review (Block 1B3)						2Q		
Block 1B3 Operational Test (OA) (OT-B5)						2Q		
Block 1B3 MS C/FRP						4Q		

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)			PROJECT NUMBER AND NAME 2190/NULKA Decoy		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	3.949	5.868	3.028	2.043	2.554	1.985	2.013
RDT&E Articles Qty	0	0	0	0	0	0	0

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 program to integrate the MK 53 Decoy Launching System with Ship Self Defense System (SSDS) and an upgrade to counter emerging threats.

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION

DATE
February 2008

APPROPRIATION/BUDGET ACTIVITY RDTEN/BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)	PROJECT NUMBER AND NAME 2190/NULKA Decoy
---	--	---

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.971	1.000	1.100
RDT&E Articles Quantity	0	0	0

NULKA decoy subsystem integration and improvements to include Effectiveness Studies, Engineering Studies and Fly Out Tactics.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	2.978	1.996	1.928
RDT&E Articles Quantity	0	0	0

Continue the development of NULKA decoy enhancements to include increased duty cycle and Electromagnetic Compatibility (EMC).

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	2.872	0.000
RDT&E Articles Quantity	0	0	0

Conduct at-sea test of upgraded Decoy Launching System (DLS) software.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
OPN: Anti-Ship Missile Decoy System / 5530	55.588	42.099	38.077					CONT	CONT
O&MN: Nulka / Anti-Ship	1.941	3.201	3.294					CONT	CONT

D. ACQUISITION STRATEGY:

NULKA is a joint cooperative program between United States and Australia in full rate production.

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE		
										February 2008		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 5		0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)					2190/NULKA Decoy					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Primary Hardware Development	RC	NSWC, Crane, IN	3.000	0.000		0.000		0.000		0.000	3.000	0.000
Primary Hardware Development	RX	BAES/Sippican	5.656	0.000		0.000		0.000		0.000	5.656	0.000
Primary Hardware Development	MIPR	BAES	4.233	1.783	NOV-06	1.794	NOV-07	0.000		CONT	CONT	0.000
Systems Engineering	WR	NRL	8.988	1.708	VAR	0.604	TBD	0.000		CONT	CONT	0.000
Systems Engineering	WR	NWAD China Lake	0.120	0.000		0.000		0.000		0.000	0.120	0.000
Mk 53 System Eng Changes	FFP	Sechan	0.150	0.000		0.000		0.000		0.000	0.150	0.000
Systems Engineering	RX	NSWC Dahlgren, VA	0.444	0.208	VAR	0.400	NOV-07	0.000		CONT	CONT	0.000
Systems Engineering	RX	NSMA, VA	0.360	0.000		0.000		0.000		0.000	0.360	0.000
Systems Engineering	WR	NSWC Crane, IN	0.227	0.200	VAR	0.000		0.000		0.000	0.427	0.000
Subtotal Product Development			23.178	3.899		2.798		0.000		CONT	CONT	0.000
Remarks:												
Development Support	RX	NRL	1.314	0.000		0.000		1.413	NOV-08	0.000	2.727	0.000
Software Development	WR	NSWC Dahlgren	2.527	0.000		0.000		1.415	TBD	0.000	3.942	0.000
Subtotal Support Costs			3.841	0.000		0.000		2.828		0.000	6.669	0.000
Remarks:												
Developmental Test & Evaluation	WR	NSWC Dahlgren, VA	0.000	0.000		0.700	TBD	0.000		0.000	0.700	0.000
Developmental Test & Evaluation	WR	NRL	0.000	0.000		1.472	TBD	0.000		0.000	1.472	0.000
Test Assets	WR	NRL	0.000	0.000		0.700	TBD	0.000		0.000	0.700	0.000
Subtotal Test and Evaluation			0.000	0.000		2.872		0.000		0.000	2.872	0.000
Remarks:												
Program Management Support	FFP	SEAPORT	0.419	0.000		0.135		0.135		0.000	0.689	0.000
Travel	PD	NAVSEA Program Office Travel	0.353	0.050		0.063		0.065		CONT	CONT	0.000
Subtotal Management Services			0.772	0.050		0.198		0.200		CONT	CONT	0.000
Remarks:												
Total Cost			27.791	3.949		5.868		3.028		CONT	CONT	0.000

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-4, SCHEDULE PROFILE

DATE
February 2008

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME
0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)

PROJECT NUMBER AND NAME
2190/NULKA Decoy

Fiscal Year	2007				2008				2009				2010				2011				2012				2013							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones																																
Production Milestones																																
Test & Evaluation Milestones																																
Development Test																																
Operational Test																																

△ DLP v. 6.3

△ LHA 6 Install Cert

△ LPD 18 DT
△ USCG Deepwater DT

△ LSD 41/49 Class DT

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-4a, SCHEDULE DETAIL

DATE

February 2008

APPROPRIATION/BUDGET ACTIVITY

RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME

0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)

PROJECT NUMBER AND NAME

2190/NULKA Decoy

Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
DLP v 6.3	4TH QTR						
LSD 41/49 CLASS DT		2ND QTR					
LPD 18 DT		4TH QTR					
USCG DEEPWATER DT		4TH QTR					
LHA 6 INSTALL CERTIFICATION					2ND QTR		

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION

DATE
February 2008

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 5

PROGRAM ELEMENT NUMBER AND NAME
0604757N/SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)

PROJECT NUMBER AND NAME
9999/Congressional Add

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
2441C/Nulka Decoy System	1.750	0.000	0.000
RDT&E Articles Quantity	0	0	0
Nulka research for development of additional capability against anti-ship missiles.			
	FY 2007	FY 2008	FY 2009
9243C Advanced radar absorbing tiles for surface ships	1.373	0.000	0.000
RDT&E Articles Quantity	0	0	0
Develop advanced radar absorbing materials.			
	FY 2007	FY 2008	FY 2009
9A53N Shipboard Electronic Warfare Improvement Program	3.163	0.000	0.000
RDT&E Articles Quantity	0	0	0
Receiver Replacement Studies, which includes the Shipboard Leverage Electronic Warfare System and Sea Raptor			
	FY 2007	FY 2008	FY 2009
9A54N SLQ-32 ESM System Interference Cancellation	3.163	0.000	0.000
RDT&E Articles Quantity	0	0	0
Modify the SLQ-32 to "see through" the interference caused by the installation of new communications system.			
	FY 2007	FY 2008	FY 2009
9999 Electronic Warfare Concept Demonstrator for the Littoral Combat	0	0.797	0.000
RDT&E Articles Quantity	0	0	0
Develop Electronic Warfare Concept Demonstrator for the Littoral Combat System.			
	FY 2007	FY 2008	FY 2009
9999 Advanced Radar Absorbing Tiles for Surface Ships	0	1.993	0.000
RDT&E Articles Quantity	0	0	0
Develop advanced radar absorbing materials.			
	FY 2007	FY 2008	FY 2009
9999 Congressional adjustment		1.993	0.000
RDT&E Articles Quantity	0	0	0
Congressional adjustment.			