CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION						DATE May 2009	
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**			R-1 ITEM NOMENCLATURE **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**				
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Total PE Cost	73.829	46.715	34.236				
0167 / 5in Rolling Airframe Missile	41.478	26.439	27.065				
0173 / NATO Sea Sparrow	19.653	9.605	7.171				
9081 / Phalanx CIWS SEARAM	6.142	0.000	0.000				
9999 / Congressional Add	6.556	10.671	0.000				

A. MISSION DESCRIPTION:

This program element provides funding for the development of systems that fulfill a portion of the third phase of the Ship Self Defense: Engage Hard Kill. Development in this line will focus on hard kill capabilities in which missiles are used to intercept incoming Anti-Ship Cruise Missiles (ASCM). ENGAGEMENT: Missile and system improvements necessary to meet their requirements are being addressed via NATO SEASPARROW Missile System (NSSMS) (0173), 5" Rolling Airframe Missile (RAM) (0167), and Phalanx CIWS SeaRAM (9081/9853A). Missile improvements include improved kinematic performance plus advanced seeker and low elevation fusing/warhead capability improvements. System improvements include incorporation of Phalanx detection capability into RAM system (SeaRAM), future concepts studies and self-destructing ammunition, and Future Phalanx Next Generation improvements. FY08/FY09 Congressional Add provides funding for Future Phalanx Next Generation improvements.

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2008	FY 2009	FY 2010
FY09 President's Budget	72.670	36.238	34.709
FY10 President's Budget	73.829	46.715	34.236
Total Adjustments	1.159	10.477	-0.473
(U) Summary of Adjustments			
Congressional Adjustments	0.000	10.573	0.000
SBIR/STTR/FTT Assessment	-0.757	0.000	0.000
Program Adjustments	2.000	0.000	0.000
Rate/Misc Adjustments	-0.084	-0.096	-0.473
Total	1.159	10.477	-0.473

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**				PROJECT NUMBER AND NAME **0167/5in Rolling Airframe Missile**		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	41.478	26.439	27.065				
RDT&E Articles Qty	0	0	0				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The purpose of this program is to develop a surface-to-air self-defense system utilizing a dual mode, passive Radio Frequency/Infrared 5" Rolling Airframe Missile. The baseline system (Block 0) provides a self-defense capability against active radar-guided anti-ship missiles and was developed on an equal cost share basis with the Government of the Federal Republic of Germany. The RAM Block 1 provides a capability against passive anti-ship missiles, very low altitude missiles, and maneuvering missiles through the incorporation of an infrared all-the-way mode seeker and improved fuse. The RAM Block 1 MOD 3 upgrade program, which provides an additional capability against helicopters, aircraft and surface craft, is a joint requirement of the U.S. and Federal Republic of Germany agreed to in a Memorandum of Agreement (MOA) signed by both parties. FY08-10 funding continues development and testing of a Block 2 upgrade to the RAM. This upgrade will allow RAM to regain battlespace lost to emerging, more maneuverable ASCM threats. This system is designed to counter anti-ship cruise missile raids and other threats to provide for ship survivability with accurate terminal guidance, proven lethality, and no shipboard post launch dependence.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**	PROJECT NUMBER AND NAME **0167/5in Rolling Airframe Missile**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
Block 2	41.309	26.326	26.948
RDT&E Articles Quantity	0	0	0

FY08-10 funds development and testing of RAM Block 2 upgrade.

	FY 2008	FY 2009	FY 2010
Travel	0.169	0.113	0.117
RDT&E Articles Quantity	0	0	0

FY08-10 funds travel.

C. OTHER PROGRAM FUNDING SUMMARY:

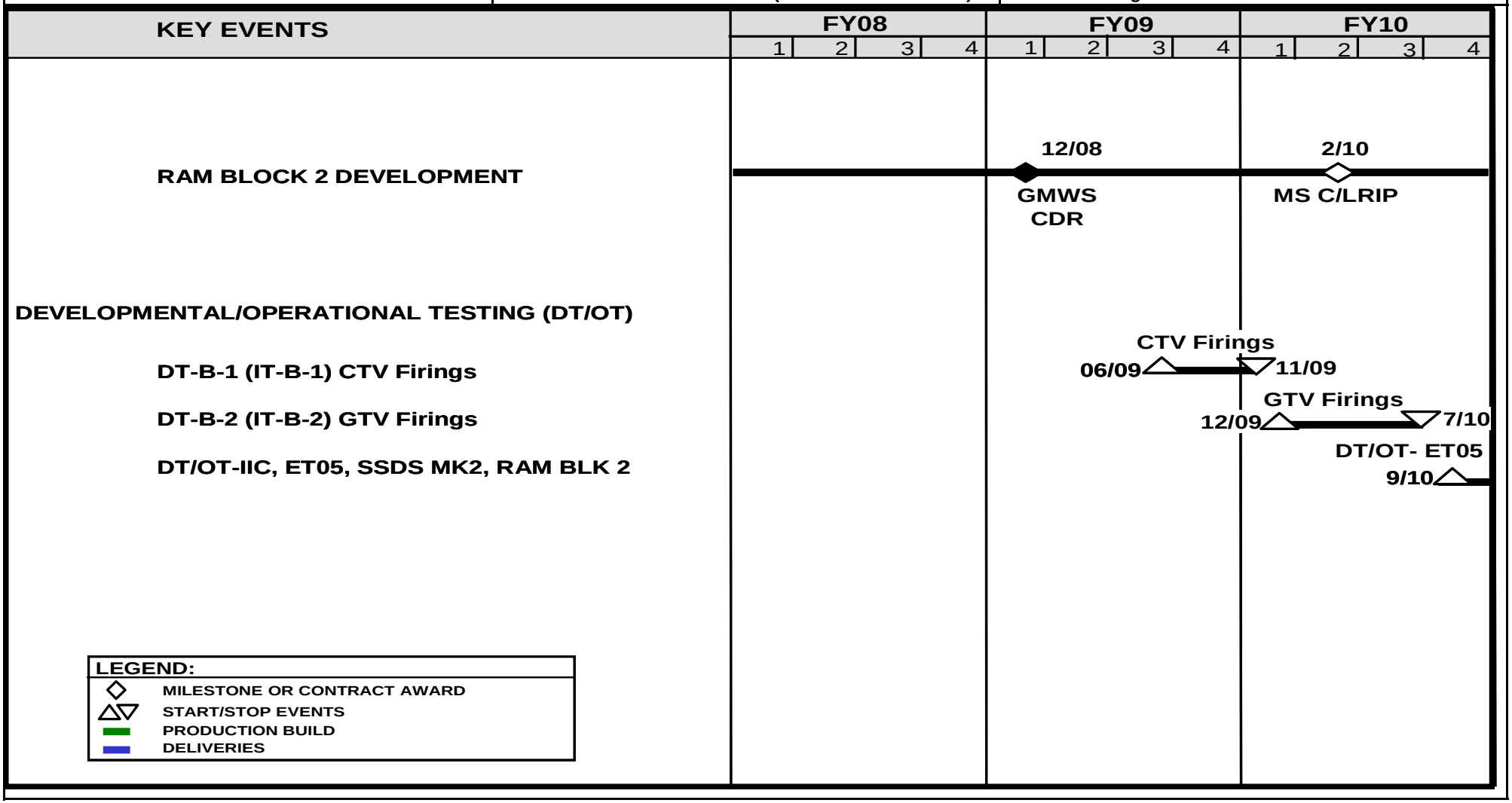
Line Item No. and Name	FY 2008	FY 2009	FY 2010
OPN LINE 5238 (RAM)	4.038	14.649	7.762
WPN LINE 2242 (RAM)	75.179	70.778	74.784

D. ACQUISITION STRATEGY:

The RAM Program uses directed sole source contracts with Raytheon Systems Company, Tucson, AZ.

CLASSIFICATION:		UNCLASSIFIED								
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS							DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL**			PROJECT NUMBER AND NAME **0167/5in Rolling Airframe Missile**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2009 Cost ($000)	FY 2009 Award Date	FY 2010 Cost ($000)	FY 2010 Award Date			
Primary Hardware Development	SS/CPFF	Raytheon/Tucson, Louisville	7.434	0.000		0.000				
Primary Hardware Dev Support	WR	China Lake/CA	1.266	0.000		0.000				
Block 1 Eng/Interface Support	SS/CPFF	Raytheon/Tucson, Louisville	0.400	0.000		0.000				
Block 1 MOD 3 Interface Support	CPFF	JHU/APL	0.981	0.000		0.000				
Block 2 Upgrade	SS/CPAF	Raytheon/Tucson, Louisville	78.818	13.200	OCT-08	6.859	NOV-09			
Block 2 Upgrade	WR	China Lake/NRL/Dahlgren	13.810	0.415	OCT-08	2.878	NOV-09			
Block 2 Upgrade	CPFF	JHU/APL	1.300	0.135	OCT-08	0.139	NOV-09			
Block 2 Product Support		various	2.104	1.417	OCT-08	1.462	NOV-09			
Subtotal Product Development			**106.113**	**15.167**		**11.338**				
Remarks:										
Studies and Analyses			1.210	0.411	OCT-08	0.424	NOV-09			
Subtotal Support Costs			**1.210**	**0.411**		**0.424**				
Remarks:										
DT&E/OT&E/FOT&E/	SS/CPAF	Raytheon/Tucson, Louisville	9.093	8.898	OCT-08	10.868	NOV-09			
FOT&E	WR	China Lake/CA, PHD/CA	4.674	0.000		0.000				
Test Support	WR	China Lake/CA, PHD/CA	10.398	1.850	OCT-08	4.318	NOV-09			
Miscellaneous		various	1.421	0.000		0.000				
Subtotal Test and Evaluation			**25.586**	**10.748**		**15.186**				
Remarks:										
Travel			0.653	0.113	OCT-08	0.117	NOV-09			
Subtotal Management Services			**0.653**	**0.113**		**0.117**				
Remarks:										
Total Cost			**133.562**	**26.439**		**27.065**				

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**	PROJECT NUMBER AND NAME **0167/5in Rolling Airframe Missile**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**			PROJECT NUMBER AND NAME **0167/5in Rolling Airframe Missile**			
Schedule Profile	FY 2008	FY 2009	FY 2010				
BLOCK 2 DEVELOPMENT	1Q-4Q	1Q-4Q	1Q-4Q				
DT- B-1 CTV Firings		3Q-4Q	1Q				
DT-B-2 GTV Firings			1Q-4Q				
DT-OT			4Q				

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**				PROJECT NUMBER AND NAME **0173/NATO Sea Sparrow**		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	19.653	9.605	7.171				
RDT&E Articles Qty	0	0	0				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project encompasses three (3) primary efforts to enhance ship self defense:

1. (U) EVOLVED SEASPARROW MISSILE (ESSM): A cooperative effort among 10 NATO SEASPARROW Nations and the U.S., to improve the capability of the SEASPARROW Missile to counter the low altitude, highly maneuverable Anti-Ship Cruise Missile threat. The program consists of evolving the SEASPARROW Missile through the development of a new rocket motor with tail control; thrust vector control and ordnance (warhead) upgrade; modifications to the MK 41 VLS to fire from a single cell with 4 ESSM (QuadPack); and modifications to the NATO SEASPARROW Missile System (NSSMS) to provide ESSM capability.

2. (U) NATO SEASPARROW - MK 91 Rearchitecture/SDSMS: The MK 91 Rearchitecture Program integrates NSSMS into the Ship Self Defense System (SSDS) Architecture to provide ship missile defense utilizing an open architected system. This effort consists of combining the Firing Officer Console and Radar Set Console functionality into a single Advanced Display System Console (AN/UYQ-70); modifying the Signal Data Processor and eliminating the MK 157 Computer Signal Data Converter and System Evaluation and Trainer, and redistributing this functionality within SSDS compatible microprocessors. This approach will eliminate the analog, point-to-point architecture, limited input-output channel and computer processing reserve deficiencies resident in the existing MK 57 NSSMS, and is required for ESSM. This modification also allows for full exploitation of the capabilities of the future ESSM and provides significant reductions (over 50%) in NSSMS cost of ownership and manning requirements.

3. (U) Amphibious Self-Defense AAW Probability of Raid Annihilation (PRA) Improvement- The Amphibious Self-Defense AAW PRA Improvement program provides the L-Class Amphibious ships (LHA, LHD, LSD) with an improved PRA through full integration of the weapons and sensors of the combat system. This improvement introduces the Multi-Sensor Integration (MSI) unit that receives fire control and sensor data from ship radars, fuses them into an integrated radar picture and provides composite track reports to the combat system. Mk 15 CIWS is upgraded to a Block 2 configuration with a much improved search and track radar. No longer stand-alone, CIWS will be integrated into the sensor suite and provide fire control quality search and track data to the combat system via the MSI unit. As a fallback measure, CIWS Blk 2 can also report directly to the MK 23 Target Acquisition Radar Threat Evaluation Weapons Assignment (TEWA) providing fire control quality track data at a very fast update rate for targets to the horizon. Target Acquisition System (TAS) itself will receive an upgrade of its OSM unit to accommodate direct inputs from both the MSI and CIWS units. This improvement program provides full integration of the combat system and will meet or exceed threat detection and designation requirements through 2020. Use of the MSI will provide stable track data through a composite track picture reported to the combat system. Without this improvement, PRA of the L-Class ships would continue to degrade to an unsatisfactory point in the mid term.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**	PROJECT NUMBER AND NAME **0173/NATO Sea Sparrow**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
EVOLVED SEASPARROW MISSILE	10.834	7.317	6.389
RDT&E Articles Quantity	0	0	0

Continue ESSM SSDS integration testing on CVN platforms. Conduct US-unique DT/OT firings from SDTS and carriers (DT/OT-D2, DT/OT-D3). Conduct ESSM Aegis integration testing and DT/OT firings on Cruisers and Destroyers and SDTS (DT/OT-D4, DT/OT-D5, DT/OT-D6) in support of Aegis Modernization Program.
Conduct ESSM DT/OT firings on SDTS (DT/OT-D7) in support of SSDS Open Architecture integration and uplink development.
This provides for the U.S share of cooperative efforts associated with ESSM engineering studies and other development initiatives.

	FY 2008	FY 2009	FY 2010
AMPHIBIOUS SELF- DEFENSE AAW IMPROVEMENT	8.261	1.818	0.382
RDT&E Articles Quantity	0	0	0

FY08-FY10 Amphibious Self-Defense AAW improvement for LHD 1-6 and LHA class ships Leveraging the MK 15 CIWS Blk 2 upgrade program, the MSIT unit developed for the Self-Defense Test Ship and the RAM MOD 3 Launcher upgrade program, L-Class PRA will be greatly enhanced. Improvements to the MK 23 TAS made to support and integrate the RAM Mod 3 Launcher will be leveraged to integrate the MSI unit and the CIWS Blk 2 GFCS. The MSI will have the greatest positive impact on PRA as composite track data will be developed and provided to the combat system. The short range air radar picture will be significantly improved through the use of the CIWS upgraded search and track radar providing track data at a very fast update rate.

	FY 2008	FY 2009	FY 2010
NATO SEASPARROW - MK -91 REACHITECTURE /SDSMS	0.558	0.470	0.400
RDT&E Articles Quantity	0	0	0

FY08-10 Provides funding for the Combat System Integration Technical Direction Agent (TDA) who will provide engineering support for combat system performance and risk mitigation. The TDA will leverage it's technical expertise & leadership to cover a broad range of activities such as defining near-term and future requirements for current systems and future upgrades, maintain system performance models to evaluate system improvements, threat changes and operational environment conditions, verify models and simulations to promote program success through application of rigorous and disciplined systems engineering principles and practices in a consistent manner across system elements over the program life cycle, make prudent use of authoritative technical expertise for advice and independent review, identify a range of technically acceptable alternatives to resolve engineering issues, assist in development of T&E planning, and continue to maintain NSPO essential research and engineering capabilities and corporate memory.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**	PROJECT NUMBER AND NAME **0173/NATO Sea Sparrow**

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2008	FY 2009	FY 2010
WPN Line 2307 (ESSM)	82.712	84.810	51.388
OPN Line 5237 (NATO SEA SPARROW)	28.528	10.290	13.556

D. ACQUISITION STRATEGY:

ESSM is a directed sole source contract to Raytheon Missile Systems Company. The MK 29 ESSM Launcher Upgrade and REARC/SSDS Intergration effort was a directed sole source contract to Raytheon Company (IDS).

CLASSIFICATION:		UNCLASSIFIED								
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS							DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL**			PROJECT NUMBER AND NAME **0173/NATO Sea Sparrow**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2009 Cost ($000)	FY 2009 Award Date	FY 2010 Cost ($000)	FY 2010 Award Date			
ESSM-Primary Hardware Development	LC/CPAF	Raytheon	143.356	0.000		0.000				
ESSM-Primary Hardware Development	Allot	TDW	3.746	0.000		0.000				
Amphin Self-defense PRA Imp	Various	Various	8.261	1.818	FEB-09	0.382	OCT-09			
Ancillary Hardware Development	CPAF	Lockheed/UDLP	46.706	0.000		0.000				
Systems Engineering	Various	Various	22.622	0.000		0.000				
MK 29/ESSM Launcher upgrade	LC/CPAF	Raytheon SYS	8.521	0.000		0.000				
NATO-Primary Hdwe Dev	CPFF	Raytheon SYS	30.627	0.000		0.000				
Software development/Test	CPFF	Raytheon SYS	9.094	0.000		0.000				
Systems Engineering/Firing Spt	Various	Various	6.133	0.425	NOV-08	0.450	NOV-09			
Subtotal Product Development			**279.066**	**2.243**		**0.832**				
Integrated Logistics Support	WR	NSWC PHD	3.568	0.000		0.000				
Engr Support	WR	Various	4.207	0.000		0.000				
MK 29/ESSM Launcher Support	WR	Dahlgren/PHD	0.375	0.000		0.000				
Engr Support	WR	Various	0.195	0.000		0.000				
NATO-MK 91/SSDS Integ	WR	Dahlgren/PHD	0.834	0.000		0.000				
Engr Support	WR	Various	6.364	0.000		0.000				
Engr Support	WR	APL	0.600	0.300	OCT-08	0.300	OCT-09			
Subtotal Support Costs			**16.143**	**0.300**		**0.300**				
Remarks:										
Developmental Test & Evaluation	WR	NAWC CL	14.493	0.645	NOV-08	0.735	NOV-09			
OPEVAL/TECHEVAL/Test Firings	WR	Various (Corona, IHD, Dalhgren, NSWC, PHD)	13.606	0.000		0.000				
Developmental Test & Evaluation	CPFF	APL	2.504	0.300	OCT-08	0.300	OCT-09			
ESSM Test & Evaluation	Various	Various	4.179	4.204	DEC-08	3.110	DEC-09			
Developmentall Test & Evaluation	WR	Dalhgren	0.418	0.000		0.000				
Subtotal Test and Evaluation			**35.200**	**5.149**		**4.145**				
Remarks:										

CLASSIFICATION:		UNCLASSIFIED								
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS							DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**			PROJECT NUMBER AND NAME **0173/NATO Sea Sparrow**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2009 Cost ($000)	FY 2009 Award Date	FY 2010 Cost ($000)	FY 2010 Award Date			
ESSM-ENGR SPT	WR	Various	4.913	0.000		0.000				
ESSM-PM SPT	WR	Various	0.498	0.000		0.000				
ESSM-Labor	Allot/WR		10.557	1.543	OCT-08	1.594	OCT-09			
ESSM-Travel	Allot/WR		2.382	0.200	OCT-08	0.200	OCT-09			
ESSM-Misc	Various	Various	2.065	0.000		0.000				
NATO Travel/Misc	0	Various	2.001	0.170	OCT-08	0.100	OCT-09			
Subtotal Management Services			**22.416**	**1.913**		**1.894**				
Remarks:										
Total Cost			**352.825**	**9.605**		**7.171**				

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**	PROJECT NUMBER AND NAME **0173/NATO Sea Sparrow**

Activity Name	FY08		FY09		FY10	
Production MOU						8/10 Delivery △
Buy Yr						
FY07		4/08 CA ▲				
FY08				5/09 CA △		
FY09						5/10 CA △
FY10						
Third Party Sales Production						
Buy Yr		4/08 CA ▲		5/09 CA △		
UAE FMS						

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**			PROJECT NUMBER AND NAME **0173/NATO Sea Sparrow**			
Schedule Profile	FY 2008	FY 2009	FY 2010				
FY 07 FRP DELIVERIES			4Q				
FY 08 FRP CONTRACT AWARD	3Q						
FY 09 FRP CONTRACT AWARD		3Q					
FY 10 FRP CONTRACT AWARD			3Q				

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**				PROJECT NUMBER AND NAME **9081/Phalanx CIWS SEARAM**		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	6.142	0.000	0.000				
RDT&E Articles Qty	0	0	0				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The purpose of this ECP effort is to combine the PHALANX CIWS radar with the Rolling Airframe Missile (RAM) Block 1/2 Missile System. The overall SeaRAM strategy is to field a low-risk-development cost system utilizing the proven capabilities and infrastructure of the RAM and PHALANX CIWS systems. This U.S. Navy SeaRAM development leverages the successful demonstration by the United Kingdom of an industry prototype system aboard the HMS York. The SeaRAM ORDALT ECP will provide improved detection and performance capabilities in a stand-alone self-defense system that will defeat the near-term, stressing Anti-Ship Cruise Missile (ASCM) threats. FY08 funding is for combat system integration and testing of the Block 1B Baseline 2 (radar upgrade) into the L-Class CS suite.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**	PROJECT NUMBER AND NAME **9081/Phalanx CIWS SEARAM**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
SeaRAM Development/Phalanx Improvements	6.142	0	0
RDT&E Articles Quantity	0	0	0

FY08 funding is for combat system integration and testing of the Phalanx CIWS Block 1B Baseline 2 (radar upgrade) into the L-Class CS suite.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2008	FY 2009	FY 2010						Total Cost
WPN LINE 4205 (CIWS)	242.824	163.284	158.896						565.004

D. ACQUISITION STRATEGY:

Phalanx CIWS programs use directed sole source contracts with Raytheon Systems Company, Tucson, AZ.

E. MAJOR PERFORMERS:

Raytheon Systems Company - Tucson, AZ and Louisville, KY - SeaRAM Prime Contractor for development.

Naval Air Weapons Center, China Lake - China Lake, CA - supporting SeaRAM development and testing.

Naval Surface Warfare Center, Port Hueneme - Port Hueneme, CA - supporting development, testing, integration and test ranges.

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604756N/SHIP SELF DEFENSE (ENGAGE: HARD KILL)**	PROJECT NUMBER AND NAME **9999/Congressional Add**	

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
9853A/CIWS Phalanx Future Concepts/Next Generation Improvements	6.556	10.671	0.000
RDT&E Articles Quantity	0	0	0

FY08/FY09 Congressional Add provides funding for Future Phalanx Next Generation improvements.