CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION						DATE February 2008	
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**			R-1 ITEM NOMENCLATURE **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**				
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	174.508	143.065	188.500	166.393	147.457	118.727	96.186
1447 / Surf Combatant Combat System Imp	140.812	139.686	188.500	166.393	147.457	118.727	96.186
3044 / Solid State/SPY Radar	30.439	0.000	0.000	0.000	0.000	0.000	0.000
9999 / Congressional Adds	3.257	3.379	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION:

The AEGIS Combatant Combat System Engineering provides immediate and effective capability to counter the current and expected air, surface, and sub-surface threats. Changes in the threat capability and advances in technology such as fiber optics, local area networks, and high performance computing require corresponding AEGIS Weapon System (AWS) and AEGIS Combat System (ACS) changes. This program provides the ACS engineering and weapon system development necessary for a continued increase in the capability of AEGIS Cruisers and Destroyers. In addition to developing and integrating improvements to the AWS, this program integrates combat capabilities developed in other Navy R&D programs into the ACS. Modifications of AWS computer programs must be made to integrate these capabilities into the ACS so that battle effectiveness and ACS performance will be retained against the evolving threat. Selected AWS and ACS upgrades will be backfitted into CG 47 Class and DDG 51 Class ships already in the Fleet, providing new key warfighting capability while reducing life cycle maintenance costs. In addition, the extensive use of Commercial Off-the-Shelf (COTS) equipment throughout the combat system requires necessary COTS refresh development efforts to pace the core Baseline development work. AEGIS Combat System engineering includes the CG/DDG Open Architecture (OA) effort, including rearchitected computer programs, to the AEGIS fleet. CG/DDG OA positions the Cruisers and Destroyers for maximum warfighting improvements and life cycle support benefit and produces a system which is considerably less difficult to maintain and modernize and mitigates the cost of inevitable required and repetitive technology refresh. The AEGIS Modernization Program will identify and introduce an Open Architecture Computing Environment (OACE) compliant with Open Architecture standards and initiatives for hardware and software. As part of the Naval Integrated Fire Control Counter Air (NIFC-CA) program, SM-6 integration efforts are also incorporated into the ACS.

The Solid State SPY Radar is being developed to support Theater Air and Missile Defense requirements as part of a next generation cruiser, CG(X), radar suite. The S-Band Solid State SPY Radar will provide multi-mission capabilities, supporting both long range, exoatmospheric detection, tracking and discrimination of ballistic missiles, as well as robust Ballistic Missile Defense (BMD) and Self Defense against air and surface threats. For the BMD capability, increased radar sensitivity and bandwidth over the current SPY-1 system is needed to detect, track and support engagements of advanced ballistic missile threats at the required ranges. For the Ballistic Missile Defense and Self Defense capability, increased sensitivity and clutter rejection capability is needed to detect, react to, and engage stressing Very Low Observable /Very Low Flyer (VLO/VLF) threats in the presence of heavy land, sea, and rain clutter. This effort provides for the development of an S-Band solid state replacement for the SPY-1 Radar with the required capabilities to pace the evolving threat. Modularity of hardware and software, a designed in growth path for technology insertion, and Open Architecture (OA) Compliance are required for performance and technology enhancements throughout service life. Project 3044 funding has been realigned to PE 0604501N starting in FY08.

Congress included the following changes to the FY07 President's Budget and the FY07 Defense Appropriations Act: +.971M for Smart Integrated Data Environment, +.976M for Smart Link Planar Scanner Antenna Modernization, +1.310M for Gas Turbine Electric Start System Technology. Congress included the following changes to the FY08 President's Budget and the FY08 Defense Appropriations Act: +2.385 for AEGIS Combat System Information Center (CIC), +0.994M for Smart Integrated Data Environment.

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2007	FY 2008	FY 2009
Previous Presidents Budget: (FY08 PB CONTROLS)	178.304	142.810	132.101
Current Presidents Budget: (FY09 PB Controls)	174.508	143.065	188.500
Total Adjustments	-3.796	0.255	56.399
Summary of Adjustments:	FY 2007	FY 2008	FY 2009
Reprogrammings	0.000	0.000	0.000
Undistributed General Reductions	-0.305	-3.124	-0.818
Program Adjustment	-3.491	3.379	57.217
Subtotal	-3.796	0.255	56.399

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**				PROJECT NUMBER AND NAME **1447/Surf Combatant Combat System Imp**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	140.812	139.686	188.500	166.393	147.457	118.727	96.186
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This program provides Cruiser & Destroyer AEGIS Combat System (ACS) upgrades and integrates new equipment and systems to pace the threat and capture advances in technology. Examples of captured advanced technologies are: fiber optics, distributed architecture, and high performance computing, all of which require corresponding AEGIS Weapons System (AWS) and ACS changes. The ACS capabilities have continually evolved. Baseline (B/L) 2 (CG 52-58) introduced the Vertical Launching System, TOMAHAWK Weapon System, and Anti-Submarine Warfare upgrades. B/L 3 (CG 59-64) introduced the AN/SPY-1B Radar, AN/UYQ-21 consoles, and UYK-43 "low boy" computers. B/L 4 (CG 65-73) introduced the production of AN/UYK-43/44 computers with superset computer programs developed for the DDG 51. Baseline 5 was introduced in FY1992 DDGs and included the Joint Tactical Information Distribution System (JTIDS) [Tactical Data Information Link (TADIL)16], Command and Control Processor (C2P), Combat Direction Finding, Tactical Data Information Exchange System, AN/SLQ-32 (V)3 Active Electronic Counter Countermeasures, and AEGIS Extended Range (ER) Missile. B/L 5 was developed in two steps (Phases): Phase 1 integrated AEGIS ER and supported the missile Initial Operational Capability; Phase 3 integrated system upgrades including Defensive Electronic Attack, Track Load Control Algorithms, and Track Initiation Processor (integrated on 5.3, DDGs 68+); JTIDS and the OJ-663 color display Tactical Graphics capability into the ACS. B/L 5 Phase 3 is now resident on baseline 3 & 4 CGs and DDG 51-78. Baseline 6 Phase I introduced COTS, Fiber Distributed Data Interface (FDDI) Local Area Network (LAN), UYQ-70 consoles, Cooperative Engagement Capability (CEC) for CGs, and an adjunct COTS computer for AEGIS Display System (ADS). It supported OPEVAL of CEC in CGs 66 and 69 and was introduced in the DDG 51 class beginning with DDG 79. B/L 6 Phase 1 is now resident on CGs 59, 65, 66, 68, 69 and 71. B/L 6 Phase 3 was introduced on DDG 85-90 and is being backfit onto DDGs 79-84. B/L 6 Phase 3 upgrades included embarked helicopters, Fiber Optics as applied to Data Multiplexing (FODMS), implementation of affordability initiatives, adjunct computers for all AWS elements, CEC for DDGs, and Battle Force Tactical Trainer (BFTT), Advanced Display System, Evolved Sea Sparrow Missile (ESSM) Identification (ID) upgrades Phase 1, Advanced TOMAHAWK Weapon System (ATWCS) Phase II, Fire Control System Upgrades, and the Joint Maritime Command Information System (JMCIS). B/L 7 Phase 1 is installed in the DDG 51 class beginning with DDG 91. Major Baseline 7 upgrades include but are not limited to introduction and integration of a new radar (AN/SPY-1D(V) upgrade), all UYK-43 and adjunct computers to be replaced with COTS-based advanced computer processing, AN/SQQ-89(V)15, and the Remote Mine Hunting System. B/L 7P1R (DDG 103-112) upgrades the computer infrastructure, Close In Weapon System (CIWS), Air Control, and introduced Open Architecture (OA) products into the main development line. The Modernization Baselines will provide new technology to replace aging military equipment currently fielded on AEGIS platforms to extend service life and provide a viable combatant for naval use into the future. These baselines should reduce the lifecycle costs to maintain combat systems and streamline the development. The Cruiser Modernization Baseline (CGM CR2) upgrades the computing infrastructure in a Technical Insertion (TI 08) and provides for computer program enhancements via Advanced Capability Build 08 (ACB 08) which will modernize CG 52-58 with new computing architecture and upgraded displays. This effort will leverage the AEGIS Open Architecture (AOA) development work. The enhancements will include Open Architected components, improve air dominance, gun weapon system capabilities, and force protection. The Cruiser Modernization Baseline (TI 08/ACB 08) will be introduced on USS BUNKER HILL CG 52 in FY08. The AEGIS Modernization Baseline (AMOD CR3) will modernize CG 59-73 and DDG 51-78 with a new computing architecture through technical insertion (TI 12), upgraded display consoles, computer program enhancements and introduce increased weapon capabilities into the AEGIS Combat System through Advanced Capability Build 12 (ACB 12). The AEGIS Modernization Baseline will include all enhancements identified for Cruiser

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **1447/Surf Combatant Combat System Imp**

Modernization and increase Underwater capabilities. New Capabilities introduced into AEGIS for Destroyers (DDG 51-78) will include Multi-Mission Signal Processor (MMSP), Single Sensor Naval Integrated Fire Control - Common Air (NIFC-CA), Standard Missile - 6 (SM-6), and Ballistic Missile capability (BMD). New capabilities introduced into the AEGIS Modernization Baseline for Cruiser (CG 59-73) will include Naval Integrated Fire Control - Common Air (NIFC-CA) and Standard Missile - 6 (SM-6) integration. The AMOD Baseline (TI 12/ACB 12) will be introduced in FY11 for the lead Cruiser and FY12 for the lead Destroyer. These baselines are essential for establishing a foundation for the rapid capability insertion. This process will allow rapid implementation of new capabilities into the fleet to counter threat gaps identified.

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDTEN/BA 5	**0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**	**1447/Surf Combatant Combat System Imp**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	18.518	12.609	24.050
RDT&E Articles Quantity	0	0	0

Accomplishments/Planned: Continued computer program development of Cruiser Modernization COTS Refresh 2 (CGM CR2) (including Technical Insertion (TI 08) and Advanced Capability Build (ACB) 08) effort targeted for Baseline 2 Cruisers in FY08 and foundational for Baseline 3/4 Cruisers in FY11. Incorporated planned functionality for both legacy and Open Architecture (OA) elements for ACB08.
Successfully completed Program Assessment Review (PAR) in 4Q FY07 and computer program developmental testing of the AOA computer program. Effort highly leverages AEGIS Open Architecture. Initiated Navy testing of the ACB08/AOA computer program. Planned near term events for CGM CR2 include: Continuation of Navy Testing of the AOA computer program for CGM CR2 integration, computer program development and platform integration through certification.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	18.891	10.881	22.416
RDT&E Articles Quantity	0	0	0

Accomplishments/Planned: Continue to provide for the operations and maintenance of the Combat System Engineering Development Site (CSEDS), Program Generation Center, Computer Program Test Site, and Land Based Test Site in support of AEGIS computer program development, testing, and integration for all AEGIS Weapon System (AWS) products. Planned activities include continuation of support for combat system development and integration.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	11.475	6.727	4.863
RDT&E Articles Quantity	0	0	0

Accomplishments/Planned: Provided funds for labs and field activities to support forward fit and backfit baseline upgrades in order to conduct engineering and scientific studies and analysis to minimize the risk in the introduction of increased warfighting capability. Studies produced by the Applied Physics Lab and the Naval Surface Warfare Center - Dahlgren Division (NSWC-DD) ensure effective management and requirement definition for Commercial Off The Shelf (COTS) hardware upgrades and capability insertion. NSWC-DD personnel also provide on site technical support and serve as co-developers for AEGIS products . Labs and field activities participate at contractor facilities during development, testing, and evaluation of upgrades to the ACS. The CMA JCTD effort within this effort plans to demonstrate a net-centric enabled tool kit by using data and information fusion capabilities that would then be applicable to our modern ship systems such as AEGIS.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	38.690	41.549
RDT&E Articles Quantity	0	0	0

Accomplishments/ Planned: Began initial requirements definition and alignment with the Ballistic Missile Defense Program for incorporation of the BMD capability. Planned efforts include: Initial design and development of the Multi-Mission Signal Processor in support of the Preliminary Design Review scheduled for 2Q FY08 and the Critical Design Review scheduled for 2Q FY09; Subsystem design completion, hardware design, hardware selection and initiation of the fabrication of a Combat System Engineering

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDTEN/BA 5	**0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**	**1447/Surf Combatant Combat System Imp**

Development Site (CSEDS) System to support developmental testing and integration; Maintain alignment with the Ballistic Missile Defense program and the associated Ballistic Missile Defense Signal Processor (BSP) Adjunct to incorporate BMD capability within MMSP during AEGIS Modernization (Technical Insertion (TI) 12 / Advanced Capability Build (ACB) 12) fielding.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	69.243	37.356	8.730
RDT&E Articles Quantity	0	0	0

Accomplishments/ Planned: This effort re-architects the AEGIS computer program for SPY (Radar), AEGIS Display System (ADS), and Weapon Control System (WCS) in accordance with and compliant with Navy Open Architecture specifications and standards, incrementally introducing the re-architected products in a spiral fashion to Cruiser Modernization COTS Refresh 2 (CGM CR2) - Advanced Capability Build (ACB) 08 for Baseline 2 Cruisers. Demonstrated Spiral 3 development progress in focused engineering events for the SPY OA, Weapons OA, Display OA, and System Services product areas. Completed Spiral 3 testing in 1QFY08. Performed an Engineering Assessment (EA) in 1Q FY08.
Planned: Continue support of CGM CR2 - ACB 08 integration with open architecture products and assist in testing for delivery to the Baseline 2 Cruisers.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	10.000	24.237	59.471
RDT&E Articles Quantity	0	0	0

Accomplishments: Defining COTS Refresh 3 Technical Architecture (TA) by providing design, development, and test efforts to establish an Open Architecture Computing Environment (OACE) capable of hosting the Open Architecture Computer Program developed as an AEGIS superset to operate on DDG 51-78 or Baseline 3 or 4 CG equipped with CR3 computing infrastructure defined as Technical Insertion(TI) 12, leveraging Cruiser Modernization (CR2) activity as the point of departure. Provides for integration of AEGIS Combat System (ACS) capability enhancements through Advanced Capability Build (ACB) 12 including Multi-Mission Signal Processor integration, Standard Missile (SM) - 6 integration, and single sensor Naval Integrated Fire Control-Counter Air (NIFC-CA) capability integration.
Conducted System Design Review (SDR) in 1Q FY08. Commenced activities and requirements allocation in support of System Specification Review (SSR), planned for 3Q FY08.
Planned: Develop, test, and integrate an AEGIS Modernization (AMOD) COTS Refresh 3 (CR3) superset combat system applicable to Baseline 3 and 4 Cruisers and DDG Modernization ships for an OACE hardware configuration. The AEGIS Modernization computer program will be able to run in a COTS Refresh 2 computing environment. Near term plans include conducting AMOD SSR in 3Q FY08 and AMOD Preliminary Design Review (PDR) in 1Q FY09.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	12.685	9.186	19.421
RDT&E Articles Quantity	0	0	0

Accomplishments/Planned: Continued development efforts for Naval Integrated Fire Control Counter Air (NIFC-CA), SM-6/AEGIS integration. Conducted Initial Process Review 2 and completing the initial requirements definition as part of AEGIS Modernization (AMOD) Advanced Capability Build (ACB) 12. Conducted Performance Analyses and Trade studies, Modeling studies and SM-6 algorithmic studies and Simulation completed to assist in design development. Planned activities include continuing analysis and design efforts to complete System Design Review (SDR) in FY08 and Preliminary Design Review (PDR) in FY11, with Initial Operating Capability in FY13 as part of AMOD ACB 12. Efforts in FY08 and beyond support systems engineering, integration, and test of US Army Joint Land Elevated Network Sensors (JLENS) into NIFC-CA "From the Sea" (FTS) kill chain.

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDTEN/BA 5	**0604307N/SURFACE COMBATANT COMBAT SYS ENGINEERING**	**1447/Surf Combatant Combat System Imp**	

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	0.000	8.000
RDT&E Articles Quantity	0	0	0

Planned: Begin the identification, development, and integration of Navy-directed component-level improvements for the combat system to support the insertion of capability upgrades to address new threats and improve performance. This effort also includes test activities to ensure combat system operability throughout the Rapid Capability Insertion Process (RCIP). Targeted components include Common Air Control and Open Architecting of SPY-1D(V) Radar Control Computer Program.

C. OTHER PROGRAM FUNDING SUMMARY:

*Note: OPN LI 2980 Other Program Funding Summary reflects relevant funding for Multi Mission Signal Processor only.

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
SCN LI2122 - DDG 51	354.347	47.742	0.000	0.000	0.000	0.000	0.000		
OPN LI2980 - Multi Mission Signal Processor	0.000	0.110	0.200	18.150	14.570	0.000	0.000	CONT	CONT
OPN LI0960 - CG Modernization	231.167	216.031	271.170	389.776	410.283	459.048	468.868	CONT	CONT
OPN LI5246 - AEGIS Support Equipment	76.695	93.641	99.243	117.953	116.304	115.739	110.788	CONT	CONT
OPN LI0900 - DDG Modernization	32.027	52.694	165.496	189.784	348.765	358.334	383.320	CONT	CONT
R&D 0603879N 3031 - SIAP (IABM Integration for DDG Mod)	10.000	15.646	19.050	25.100	13.100	11.800	3.100	CONT	CONT
R&D 0604378N 3159 - NIFC-CA	14.359	11.252	10.533	12.075	15.136	6.311	5.331	CONT	CONT

D. ACQUISITION STRATEGY:

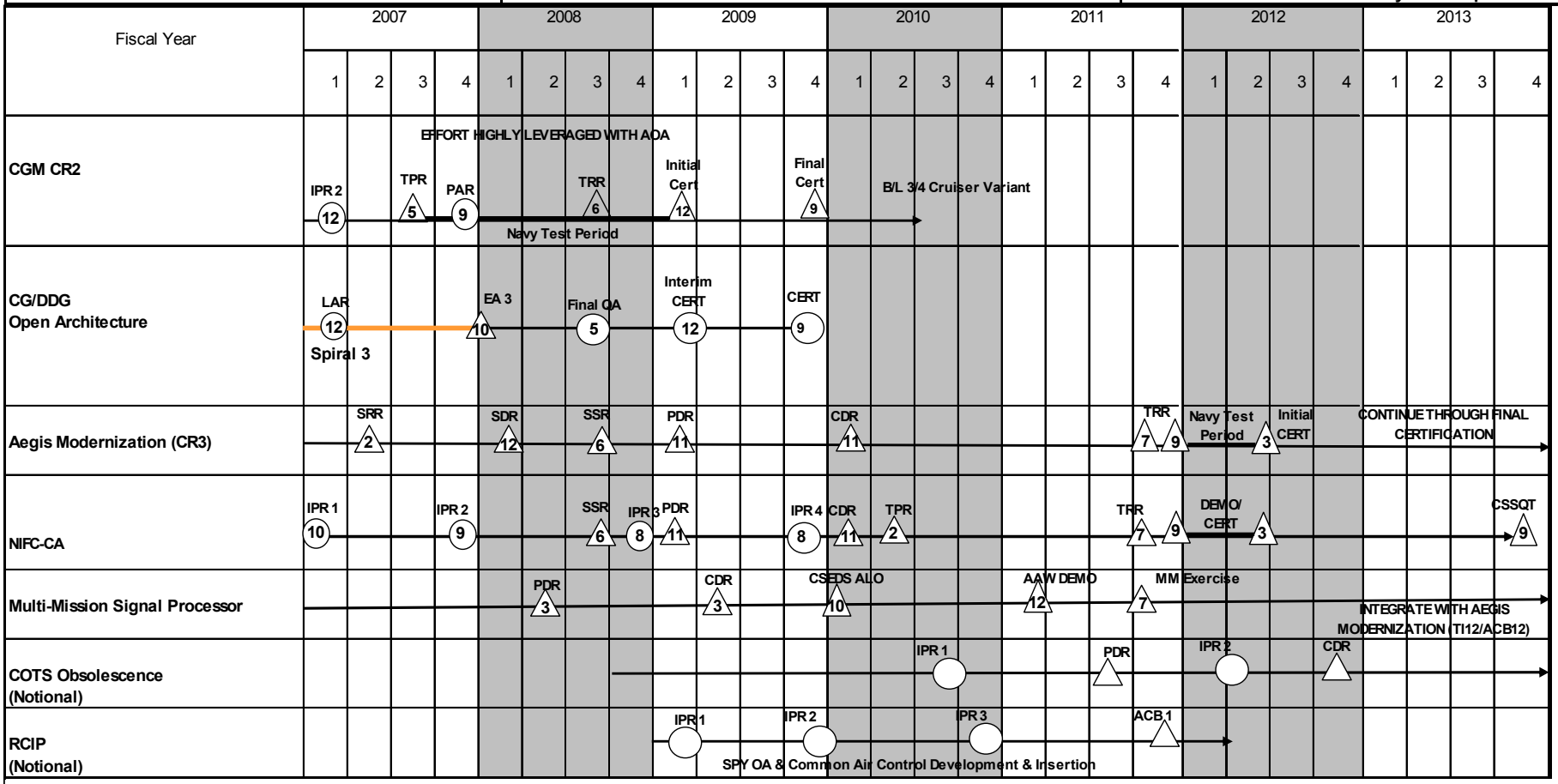
Combat System Improvements are implemented in Baselines as described in the project mission statement. In FY 1998, Lockheed Martin was awarded an omnibus contract (sole source) to develop and integrate combat system improvements, which supported AEGIS Baseline Upgrade Development efforts. After the combat system is completed and tested, the computer program and associated equipment are delivered to the new construction shipbuilders and modernization shipyards where the program and equipment are installed and tested along with all other elements of the shipboard combat system and associated combat support systems. The computer program is a Government Furnished Equipment (GFE) deliverable to the Production Test Center for equipment test and check out. Various competitive contracts will be pursued in the FY08/FY09 timeframe to procure component-level combat system upgrades and capability enhancements with multiple vendors. These software enhancements will then be integrated into the combat system for AEGIS platforms by a platform systems engineering agent to ensure performance and guard against regression in a shipboard environment.

E. MAJOR PERFORMERS:

Lockheed Martin (LM) Maritime Systems and Sensors (MS2) - Moorestown, NJ (Combat System Engineering Agent)
NSWC Dahlgren Division (NSWC DD)- Dahlgren, VA (Lifetime Support Engineering Agent)

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**					PROJECT NUMBER AND NAME **1447/Surf Combatant Combat System Imp**					
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
Systems Engineering	SS/CPAF	Lockheed, Moorestown, NJ	1,118.090	97.095	JAN-07	97.845	JAN-08	128.078	DEC-08	CONT	CONT	0.000
Systems Engineering	SS/CPFF	APL, Baltimore MD	28.360	0.817	NOV-06	0.760	NOV-07	1.400	NOV-08	CONT	CONT	0.000
Systems Engineering	WR/RCP	NSWC Dahlgren, VA	177.250	8.915	NOV-06	7.714	NOV-07	13.543	NOV-08	CONT	CONT	0.000
Systems Engineering	SS/CPAF	BAE Systems, Rockville, MD	12.940	5.089	FEB-07	5.572	FEB-08	4.987	FEB-09	CONT	CONT	0.000
Systems Engineering	WR	NSWC Port Hueneme, CA	32.140	2.148	NOV-06	1.952	NOV-07	2.452	NOV-08	CONT	CONT	0.000
Systems Engineering	WR/RCP	NWAS Corona, CA	20.780	1.325	NOV-06	1.315	NOV-07	1.159	NOV-08	CONT	CONT	0.000
Systems Engineering	WR	SPAWAR	6.110	0.840	NOV-06	0.905	NOV-07	0.864	NOV-08	CONT	CONT	0.000
Systems Engineering	WR/RCP	Various	48.870	1.047	TBD	0.576	TBD	7.823	TBD	CONT	CONT	0.000
Award Fees	SS/CPAF	Lockheed , Moorestown, NJ	140.150	13.600	JUL-07	13.600	JUL-08	16.709	JUL-09	CONT	CONT	0.000
Award Fees	SS/CPAF	BAE Systems, Rockville, MD	1.080	0.250	TBD	0.250	TBD	0.250	TBD	CONT	CONT	0.000
Award Fees	SS/CPAF	Alion Science, Washington, DC	0.500	0.250	TBD	0.250	TBD	0.250	TBD	CONT	CONT	0.000
Award Fees	WR/RCP	Various	2.790	0.000		0.000		1.800	TBD	CONT	CONT	0.000
Subtotal Product Development			**1,589.060**	**131.376**		**130.739**		**179.315**		**CONT**	**CONT**	**0.000**
Remarks:												
Test and Evaluation	SS/CPAF	Lockheed, Moorestown, NJ	27.230	2.838	JUL-07	2.767	JUL-08	4.125	JUL-09	CONT	CONT	0.000
Test and Evaluation	WR	NSWC Port Hueneme, CA	9.150	0.724	NOV-06	0.689	NOV-07	0.643	NOV-08	CONT	CONT	0.000
Test and Evaluation	WR/RCP	Various	15.340	1.523	TBD	1.257	TBD	1.119	TBD	CONT	CONT	0.000
Test and Evaluation	CPFF	APL, Baltimore, MD	3.500	0.000		0.000		0.000		0.000	3.500	0.000
Subtotal Test and Evaluation			**55.220**	**5.085**		**4.713**		**5.887**		**CONT**	**CONT**	**0.000**
Remarks:												
Program Management Support	SS/CPAF	Alion Science, Washington, DC	8.300	4.000	FEB-07	3.897	FEB-08	2.979	FEB-09	CONT	CONT	0.000
Program Management Support	WR/RCP	Various	8.620	0.351	TBD	0.337	TBD	0.319	TBD	CONT	CONT	0.000
Subtotal Management Services			**16.920**	**4.351**		**4.234**		**3.298**		**CONT**	**CONT**	**0.000**
Remarks:												
Total Cost			**1,661.200**	**140.812**		**139.686**		**188.500**		**CONT**	**CONT**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **1447/Surf Combatant Combat System Imp**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**			PROJECT NUMBER AND NAME **1447/Surf Combatant Combat System Imp**			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
CG Modernization: Initial Process Review (IPR) 2	1Q						
CG Modernization: Test Program Review (TPR)	3Q						
CG Modernization: Navy Integrated Test Period	3Q	THROUGH	1Q				
CG Modernization: Program Assessment Review (PAR)	4Q						
CG Modernization: Test Readiness Review (TRR)		3Q					
CG Modernization: Initial Certification			1Q				
CG Modernization: Final Certification			4Q				
CG/DDG Open Architecture: Spiral 3 Lifecycle Architecture Review (LAR)	1Q						
CG/DDG Open Architecture: Spiral 3 Engineering Assessment (EA) 3		1Q					
CG/DDG Open Architecture: Final Quality Assurance (QA)		3Q					
CG/DDG Open Architecture: Interim Certification			1Q				
CG/DDG Open Architecture: Certification (CERT)			4Q				
AEGIS Modernization: System Readiness Review (SRR)	2Q						
AEGIS Modernization: System Design Review (SDR)		1Q					
AEGIS Modernization: System Specification Review (SSR)		3Q					
AEGIS Modernization: Preliminary Design Review (PDR)			1Q				
AEGIS Modernization: Critical Design Review (CDR)				1Q			
AEGIS Modernization: Test Readiness Review (TRR)					4Q		
AEGIS Modernization: Navy Integrated Test Period					4Q THROUGH	2Q	
AEGIS Modernization: Initial Certification						2Q	
NIFC-CA: In Process Review (IPR) 1	1Q						
NIFC-CA: In Process Review (IPR) 2	4Q						
NIFC-CA: Software Specification Review (SSR)		3Q					
NIFC-CA: In Process Review (IPR) 3		4Q					
NIFC-CA: Preliminary Design Review (PDR)			1Q				
NIFC-CA: In Process Review (IPR) 4			4Q				
NIFC-CA: Critical Design Review (CDR)				1Q			
NIFC-CA: Technical Requirements Review (TRR)				2Q			
NIFC-CA: Test Readiness Review (TRR)					4Q		
NIFC-CA: Demo/Certification/Integrated Test Period					4Q THROUGH	2Q	

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL (CONTINUATION)					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**			PROJECT NUMBER AND NAME **1447/Surf Combatant Combat System Imp**			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
NIFC-CA: Combat Systems Qualification Trials (CSSQT)							4Q
Multi-Mission Signal Processor: Preliminary Design Review (PDR)		2Q					
Multi-Mission Signal Processor: Critical Design Review (CDR)			2Q				
Multi-Mission Signal Processor: CSEDS AEGIS Light Off (ALO)				1Q			
Multi-Mission Signal Processor: AAW Demonstration					1Q		
Multi-Mission Signal Processor: Multi-Mission Exercise					4Q		
COTS Obsolescence: Initial Process Review (IPR) 1				3Q			
COTS Obsolescence: Preliminary Design Review (PDR)					3Q		
COTS Obsolescence: Initial Process Review (IPR) 2						2Q	
COTS Obsolescence: Critical Design Review (CDR)						4Q	
RCIP: Initial Process Review (IPR) 1			1Q				
RCIP: Initial Process Review (IPR) 2			4Q				
RCIP: Initial Process Review (IPR) 3				4Q			
RCIP: Advanced Capability Build (ACB) 1					4Q		

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDTEN/BA 5	**0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**	**9999/CONGRESSIONAL ADDS**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.971	0.000	0.000
RDT&E Articles Quantity	0	0	0

The Smart Integrated Data Environment (SIDE) is a concept for a fully interactive, ship-wide integration of physical plant and supporting operations, maintenance, logistics, training, and other data. Decision-aids and automated processes are further integrated to make the data both dynamic and useful at every echelon of the organization. SIDE has potential to increase productivity and, hence, decrease Sailor workload. The funding will be used for the development of a limited capability, shore-based prototype that will prove the concept and provide an automated Engineering Operating Sequencing System (EOSS)/Combat Systems Operating Sequencing Systems (CSOSS) equipment tag-out capability for shore based validation teams. This initial capability will be expanded to incorporate an engineering casualty control exercise component and subsequently will be transitioned to shipboard use and further developed to incorporate the full range of potential capability.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.976	0.000	0.000
RDT&E Articles Quantity	0	0	0

This project began as a light-weight, portable shipboard antenna utilizing C-Band mainly for enhancement of crew quality of life. Also under the original effort an additional, interchangeable antenna and feed at the Super High Frequency (SHF) was being designed. The Navy focus has changed to a requirement for designs that are stealthy with low radar cross section for new ships. To meet that requirement, Malibu Research has been retasked under the original effort to investigate an alternate optimum frequency and form factor configurations for an antenna to meet quality of life applications. This task is using a compact planar scanner using a lens scanning antenna technique and will be flush mounted/embedded into the ship structure. The task is therefore to design, fabricate and demonstrate a Super High Frequency (SHF) and a Global Broadcast System (GBS) antenna that will fit into the DOD's present and future information dominance architecture.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	1.310	0.000	0.000
RDT&E Articles Quantity	0	0	0

This program will support the development of new technology for the Gas Turbine Electric Start System (GT-ESS) prototypes for the CG-47 and DDG-51 class ships.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	3.379	0.000
RDT&E Articles Quantity	0	0	0

FY08 Congressional Adds:

$0.994M for Smart Integrated Data Environment

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **9999/CONGRESSIONAL ADDS**

will prove the concept and provide an automated Engineering Operating Sequencing System (EOSS)/Combat Systems Operating Sequencing Systems (CSOSS) equipment tag-out capability for shore based validation teams. This initial capability will be expanded to incorporate an engineering casualty control exercise component and subsequently will be transitioned to shipboard use and further developed to incorporate the full range of potential capability.

$2.385M for AEGIS Combat Information Center (CIC) Virtualization/Common presentation layer integration

The AEGIS Combat Information Center Virtualization effort is a concept to standardize combat information center display systems across the Surface Navy Fleet beginning with AEGIS class ships, both Cruisers and Destroyers. This effort integrates existing open architecture design and code with common displays to deliver a universal system to the sailor targeting Cruiser and Destroyer Modernization upgrades. AEGIS CIC Virtualization continues the migration to software-based applications, increasing maintainability and reliability of the combat system.