CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	R-1 ITEM NOMENCLATURE **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**						
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Total PE Cost	151.609	200.271	178.459				
1447 / Surf Combatant Combat System Imp	148.332	187.905	178.459				
9999 / Congressional Adds	3.277	12.366	0.000				

A. MISSION DESCRIPTION:

This project provides Cruiser & Destroyer 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 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 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 and 4 CGs and DDG 51-78. Baseline 6 Phase 1 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 DDGs 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 91-102 Major Baseline 7 upgrades include but are not limited to introduction and integration of 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 OA products into the main development line. The Modernization Baselines will provide new technology to replace aging military equipment and extend service life to provide viable combatant for naval use into the future. These baselines should reduce the life cycle costs to maintain combat systems and streamline the development of capabilities. Advanced Capability Build - 08 / Technical Insertion - 08 (ACB-08/TI-08) (Cruiser Modernization) Baseline consists of an upgraded computing infrastructure and computer program enhancements to existing warfighting capabilities on CG 52-58. Advanced Capability Build -12 / Technical Insertion - 12 (ACB-12/TI-12) (AEGIS Modernization) baseline consists of an upgraded computing infrastructure and computer program enhancements to provide increased warfighting capabilities which will modernize CG 59-73 and DDG 51-78. ACB-12 Destroyers upgrades will consists of Naval Integrated Fire with new computing architecture, upgraded display consoles, computer program enhancements and introduce Control - Common Air (NIFC-CA), Standard Missile - 6 (SM-6), Common Display System(CDS), Common Processor System (CPS), Multi Mission Signal Processor (MMSP), and Ballistic Missile Defense (BMD). ACB-12 Cruiser Upgrades will

consist of Naval Integrated Fire Control-Common Air (NIFC-CA), Standard Missile-6 (SM-6), Common Display System (CDS), and Common Processor System (CPS).

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2008	FY 2009	FY 2010
FY09 President's Budget	143.065	188.500	166.393
FY10 President's Budget	151.609	200.271	178.459
Total Adjustments	8.544	11.771	12.066
(U) Summary of Adjustments			
Congressional Adjustments	0.000	11.856	0.000
SBIR/STTR/FTT Assessment	-1.276	0.000	0.000
Program Adjustments	9.999	0.000	15.482
Rate/Misc Adjustments	-0.179	-0.085	-3.416
Total	8.544	11.771	12.066

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2008	FY 2009	FY 2010						Total Cost
R&D 0604501N 3232 Mulit Mission Signal Processor (MMSP)	0.000	0.000	33.098						33.098
SCN LI2122 - DDG 51	47.742	199.403	2,241.263						2,488.408
OPN LI2980 - Multi Mission Signal Processor	47.906	43.302	65.760						156.968
OPN LI0960 - CG Modernization	216.031	232.270	315.323						763.624
OPN LI5246 - AEGIS Support Equipment	88.696	89.160	108.886						286.742
OPN LI0900 - DDG Modernization	52.694	165.008	142.262						359.964
R&D 0603879N 3031 - SIAP (IABM Integration for DDG Mod)	45.615	41.568	52.716						139.899
R&D 0604378N 3159 - NIFC-CA	11.144	10.503	11.727						33.374

*Note:The OPN LI 2980 Other Program Funding Summary reflects the portion of LI 2980 that is relevant for Multi Mission Signal Processor only.

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. Future Combat System delivery will be provided in Advanced Capability Builds (ACBs) and Technical Insertions (TIs) using a sole source contract to provide the Platform System Engineering Agent (PSEA). Additional Contracts will be awarded to address ACB-12 development, Sites Management, and Multi-Mission Signal Processor (MMSP) development.

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-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
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 2008	FY 2009	FY 2010				
Project Cost	148.332	187.905	178.459				
RDT&E Articles Qty	0	0	0				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project provides Cruiser & Destroyer 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 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 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 and 4 CGs and DDG 51-78. Baseline 6 Phase 1 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 DDGs 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 91-102 Major Baseline 7 upgrades include but are not limited to introduction and integration of 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 OA products into the main development line. The Modernization Baselines will provide new technology to replace aging military equipment and extend service life to provide viable combatant for naval use into the future. These baselines should reduce the life cycle costs to maintain combat systems and streamline the development of capabilities. Advanced Capability Built - 08 / Technical Insertion - 08 (ACB-08/TI-08) (Cruiser Modernization) Baseline consists of an upgraded computing infrastructure and computer program enhancements to existing warfighting capabilities on CG 52-58. Advanced Capability Build -12 / Technical Insertion - 12 (ACB-12/TI-12) (AEGIS Modernization) baseline consists of an upgraded computing infrastructure and computer program enhancements to provide increased warfighting capabilities which will modernize CG 59-73 and DDG 51-78. ACB-12 Destroyers upgrades will consists of Naval Integrated Fire with new computing architecture, upgraded display consoles, computer program enhancements and introduce Control - Common Air (NIFC-CA), Standard Missile - 6 (SM-6), Common Display System (CDS), Common Processor System (CPS), Multi Mission Signal Processor (MMSP), and Ballistic Missile Defense (BMD). ACB-12 Cruiser Upgrades will consist of Naval Integrated Fire Control-Common Air (NIFC-CA), Standard Missile-6(SM-6), Common Display System (CDS), and Common Processor System (CPS).

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE May 2009
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 2008	FY 2009	FY 2010
AEGIS LIFE CYCLE SUPPORT	16.254	26.684	49.139
RDT&E Articles Quantity	0	0	0

FY08 Plan: Continue to provide AEGIS Life Cycle Support for the following: operations and maintenance of the Combat Systems Engineering Development Site (CSEDS), Program Generation Center, and Computer Program Test Site (CPTS) in support of AEGIS Computer Program development, testing, and integration for all AEGIS Weapon System (AWS) products. Continue to provide Systems Engineering for labs and field activities to support services; provide Program Management support, Modeling & Simulation, Requirements Management Warfighting Capability Integration Impacts, and Conceptual Studies. Provides Computer Program License funding to support Land Based Test Site installation, development and test efforts. Provide Commercial-Off-the-Shelf (COTS) management of in-service AEGIS Ships to address COTS Obsolescence issues and support computer program modification to enable integration of replacement parts. AEGIS Life Cycle Support in FY08 is in primary support ACB-08 Test and Certification Programs. Planned activities include continuation of support for operational requirements of land based test sites combat, continuation of System Engineering support, and provide Test Site Licenses to support all navy development, integration, and test functions.

FY09 Plan: Continue to provide AEGIS Life Cycle Support for the following: operations and maintenance of the Combat Systems Engineering Development Site (CSEDS), Program Generation Center, and Computer Program Test Site (CPTS) in support of AEGIS Computer Program development, testing, and integration for all AEGIS Weapon System (AWS) products. Continue to provide Systems Engineering for labs and field activities to support services; provide Program Management support, Modeling & Simulation, Requirements Management, Warfighting Capability Integration Impacts, and Conceptual Studies. Provides Computer Program License funding to support Land Based Test Site installation, development and test efforts. Provide Commercial-Off-the-Shelf (COTS) management of in-service AEGIS Ships to address COTS Obsolescence issues and support computer program modification to enable integration of replacement parts. AEGIS Life Cycle Support in FY09 is primary support of ACB-12 / TI-12 Development and Test Programs.

FY10 Plan: Continue to provide AEGIS Life Cycle Support for the following: operations and maintenance of the Combat Systems Engineering Development Site (CSEDS), Program Generation Center, and Computer Program Test Site (CPTS) in support of AEGIS Computer Program development, testing, and integration for all AEGIS Weapon System (AWS) products. Continue to provide Systems Engineering for labs and field activities to support services; provide Program Management support, Modeling & Simulation, Requirements Management, Warfighting Capability Integration Impacts, and Conceptual Studies. Provides Computer Program License funding to support Land Based Test Site installation, development and test efforts. Provide Commercial-Off-the-Shelf (COTS) management of in-service AEGIS Ships to address COTS Obsolescence issues and support computer program modification to enable integration of replacement parts. AEGIS Life Cycle Support in FY10 is primary support of ACB-12 / TI-12 Development and Test Programs.

	FY 2008	FY 2009	FY 2010
TECHNOLOGY INSERTION - ACB 08	36.182	8.730	0.000
RDT&E Articles Quantity	0	0	0

FY08 Plan: Continued Development and Integration of Technology Insertion - 08 (TI-08). Integration of Q-70 products and addition hardware equipment required to meet AEGIS Combat System Requirements. Planned to support development and integration testing of Advanced Capability Build-08 (ACB-08) FY09 Plan: Continued Development and Integration of Technical Insertion - 08 (TI-08). Resolve Hardware issues related to TI-08 Integration.

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE May 2009
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**	

	FY 2008	FY 2009	FY 2010
ADVANCED CAPABILITY BUILD - ACB 08	12.609	24.050	6.970
RDT&E Articles Quantity	0	0	0

FY08 Plan: Continued Computer Program development for Advanced Capability Build - 08 (ACB-08). Efforts are targeted for fielding on AEGIS Cruisers (52-58) in FY08 - FY11. Provided planned functionality changes to computer program components within ACB-08. Successfully completed Pre-Award Review (PAR) in 4Q FY07 and computer program developmental testing of AEGIS Open Architected components. Initialed Navy testing of ACB-08 Computer Program Configuration to support delivery of Computer Programs. Planned continuation of Navy Testing in support of development, integration and certification efforts. Planned integration of RCIP approved Layered Defense initiative.
FY09 Plan: Continued Computer Program Certification Testing of Advanced Capability Build - 08 (ACB-08). Development and Integration of RCIP capabilities into the ACB-08 for potential fielding in FY10 RCIP Approved capabilities include Layered Defense and TDC Capabilities for fielding within the ACB-08 and following development efforts.
FY10 Plan: Integration of RCIP Approved Capabilities for fielding in ACB-08 platforms and following development efforts.

	FY 2008	FY 2009	FY 2010
TECHNOLOGY INSERTION - ACB 12	11.603	6.913	9.566
RDT&E Articles Quantity	0	0	0

FY08 Accomplishments: Completed Delta SDR, approved Build 1, and selection of COTS CFE. FY09 Plan: Continued Development and Integration of Technology Insertion - 12 (TI-12). Integration of IWS 6.0 provided Common Display System (CDS) and Common Processor System (CPS) products in support of Advanced Capability Build - 12 (ACB-12) development and integration testing.
FY09 Plan: Support ACB-12 / TI-12 System Specification Review and Preliminary Design Review to address all Hardware related concerns.
FY10 Plan: Support ACB-12 / TI-12 Critical Design Review to address all Hardware related concerns.

	FY 2008	FY 2009	FY 2010
ADVANCED CAPABILITY BUILD - ACB 12	23.987	60.558	79.459
RDT&E Articles Quantity	0	0	0

FY08 Accomplishments: Completed Delta SDR and approved plan for JTM alignment. Updated SDR artifacts reviewed at Delta SDR. FY08 Plan: Continued Computer Program development of Advanced Capability Build - 12 (ACB-12) efforts targeted for fielding on AEGIS Cruisers (59-73) in FY12. Develop superset Computer Program to operate on both AEGIS Destroyer and Cruiser equipped with Technical Insertion - 12 (TI-12). ACB-12 will leverage ACB-08 products as the starting point for code development. Provides for integration of AEGIS Combat System (ACS) enhancements including integration of Standard Missile - 6 (SM-6) in 1Q FY08. Commenced activities and requirements allocation in support of Joint Track Manager (JTM) Alignment within ACB-12. JTM Alignment will provide a landing zone for the Single Integrated Air Picture (SIAP) components into the AEGIS Combat System. Updates to SDR artifacts will be reviewed at the Delta SDR. Planned: Develop, test, and integrate ACB-12 superset Computer Program to support fielding on AEGIS Cruisers 59-73 and Destroyers 51-78. Near term plans include conducting AMOD Delta System Design Review (SDR) 3Q FY08, Software Specification Review (SSR) / Preliminary Design Review (PDR) in 1Q FY09.
FY09 Plan: Support ACB-12 / TI-12 System Specification Review and Preliminary Design Review to address all Hardware related concerns.
FY10 Plan: Support ACB-12 / TI-12 Critical Design Review to address all Hardware related concerns.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
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**

	FY 2008	FY 2009	FY 2010
ADVANCED CAPABILITY - ACB 14	0.000	0.000	8.645
RDT&E Articles Quantity	0	0	0

FY10 Plan: Commence development efforts to develop, integrate and test MH-60R capabilities within the AEGIS Combat System. Planned for development, integration and testing of RCIP approved MH-60R capability into the AWS for fielding on modernized platforms. Capability will be fielded within Advanced Capability Build -14 (ACB-14).

	FY 2008	FY 2009	FY 2010
MULTI MISSION SIGNAL PROCESSOR	38.690	41.549	0.000
RDT&E Articles Quantity	0	0	0

FY08 Plan: Began initial requirements definition and alignment with the Ballistic Missile Defense Program for incorporation of the BMD capability. Successfully completed Preliminary Design Review. Planned efforts include: Initial design and development of the Multi-Mission Signal Processor in support of the Critical Design Review scheduled for 2Q FY09 successfully completed; Subsystem design completion, hardware design, hardware selection and initiation of the fabrication of a Combat System Engineering 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 - 12 / Advanced Capability Build - 12 (TI-12/ACB-12)] fielding.
FY09 Plan: Support MMSP Preliminary Design Review - 2 and Critical Design Review to address all MMSP development issues and concerns.
FY10 Plan: Support Initial Capability Demonstration at Combat System Development Engineering Site.

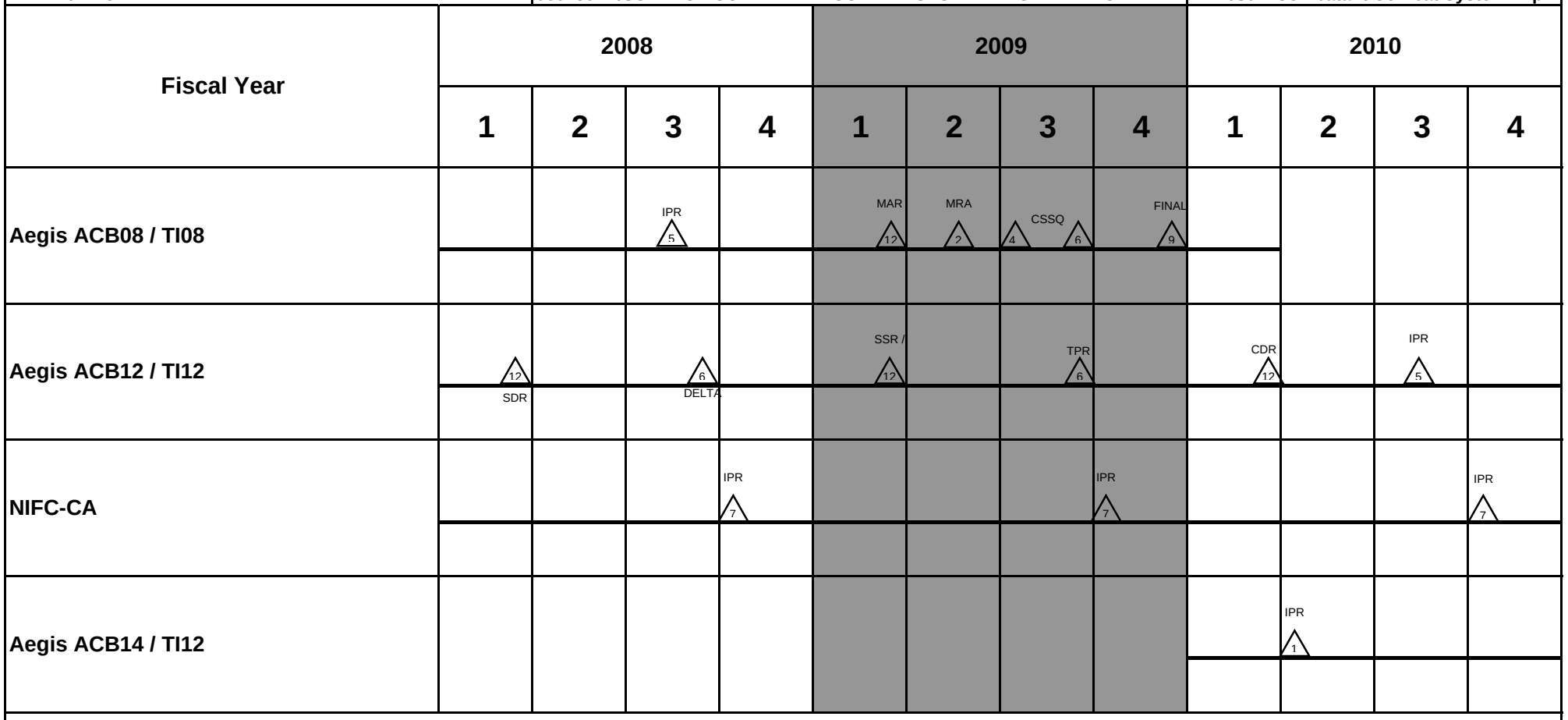
	FY 2008	FY 2009	FY 2010
NAVAL INTEGRATED FIRE CONTROL - COUNTER AIR	9.007	19.421	24.680
RDT&E Articles Quantity	0	0	0

FY08 Plan: Continued development efforts for Naval Integrated Fire Control Counter Air (NIFC-CA), SM-6/AEGIS integration. Conducted In Process Review (IPR) 3 and completing the initial requirements definition as part of AEGIS Modernization Advanced Capability Build -12 (ACB-12). Conducted performance analyses and trade studies, modeling studies SM-6 algorithmic studies and complete simulation 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 FY09, with Initial Operating Capability in FY13 as part of ACB-12. Efforts in FY09 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.
FY09 Plan: Support the NIFC-CA Preliminary Design Review and monitor development efforts for integration into ACB-12.
FY10 Plan: Support the NIFC-CA Critical Design Review and monitor development efforts for integration into ACB-12.

CLASSIFICATION:	UNCLASSIFIED								
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS							DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGIN**			PROJECT NUMBER AND NAME **1447/Surf Combatant Combat System Imp**				
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	Total Cost ($000)	Target Value of Contract
Systems Engineering	SS/CPAF	Lockheed, Moorestown, NJ	1,315.615	127.483	DEC-08	113.598	DEC-09	CONT	0.000
Systems Engineering	SS/CPFF	APL, Baltimore MD	30.159	1.400	NOV-08	2.574	NOV-09	CONT	0.000
Systems Engineering	WR/RCP	NSWC Dahlgren, VA	196.449	13.543	NOV-08	23.342	NOV-09	CONT	0.000
Systems Engineering	SS/CPAF	BAE Systems, Rockville, MD	23.997	4.987	FEB-09	7.643	FEB-10	CONT	0.000
Systems Engineering	WR	NSWC Port Hueneme, CA	36.740	2.452	NOV-08	6.527	NOV-09	CONT	0.000
Systems Engineering	WR/RCP	NWAS Corona, CA	24.448	1.159	NOV-08	1.252	NOV-09	CONT	0.000
Systems Engineering	WR	SPAWAR	7.855	0.864	NOV-08	0.380	NOV-09	CONT	0.000
Systems Engineering	WR/RCP	*Miscellaneous	51.404	7.823	VAR	11.147	VAR	CONT	0.000
Award Fees	SS/CPAF	Lockheed , Moorestown, NJ	167.740	16.709	JUL-09	7.436	JUL-10	CONT	0.000
Award Fees	SS/CPAF	BAE Systems, Rockville, MD	1.625	0.250	DEC-08	0.087	TBD	CONT	0.000
Award Fees	SS/CPAF	Alion Science, Washington, DC	1.000	0.250	JUL-09	0.044	TBD	CONT	0.000
Award Fees	WR/RCP	*Miscellaneous	2.790	1.800	VAR	0.000	TBD	CONT	0.000
Subtotal Product Development			**1,859.822**	**178.720**		**174.030**		**CONT**	**0.000**
Remarks: *Consist of multiple performing activities with funding for each no greater than $1 million per year.									
Test and Evaluation	WR/RCP	Dept of Interior	32.835	4.125	JUL-09	0.664	JUL-10	CONT	0.000
Test and Evaluation	WR	NAVAIR, MD	10.563	0.643	NOV-08	0.095	NOV-09	CONT	0.000
Test and Evaluation	WR/RCP	*Miscellaneous	21.620	1.119	VAR	0.147	VAR	23.041	0.000
Subtotal Test and Evaluation			**65.018**	**5.887**		**0.906**		**23.041**	**0.000**
Remarks: *Consist of multiple performing activities with funding for each no greater than $1 million per year.									
Program Management Support	SS/CPAF	Alion Science, Washington, DC	16.197	2.979	FEB-09	1.173	FEB-10	CONT	0.000
Program Management Support	SS/CPAF	BAE Systems, Rockville, MD	9.307	0.319	VAR	0.973	VAR	CONT	0.000
Program Management Support	SS/CPAF	*Miscellaneous	0.000	0.000	VAR	1.377	VAR	1.377	0.000
Subtotal Management Services			**25.504**	**3.298**		**3.523**		**CONT**	**0.000**
Remarks: *Consist of multiple performing activities with funding for each no greater than $1 million per year.									

CLASSIFICATION:	UNCLASSIFIED								
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS							DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGIN**			PROJECT NUMBER AND NAME **1447/Surf Combatant Combat System Imp**				
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	Total Cost ($000)	Target Value of Contract
Total Cost			**1,950.344**	**187.905**		**178.459**		**CONT**	**0.000**

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-4, SCHEDULE PROFILE			DATE May 2009
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 May 2009		
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 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Advanced Capability Build-08: In Progress Review	3Q						
Advanced Capability Build-08: Combat System Ship Qualification Test		3Q					
Advanced Capability Build-08: Mission Readiness Assessment for Dec 08 Underway		1Q					
Advanced Capability Build-08: Mission Readiness Assessment for CSSQT		2Q					
Advanced Capability Build-08: Final Certification / Computer Program Acceptance Panel		4Q					
Advanced Capability Build-12: System Design Review (SDR)	1Q						
Advanced Capability Build-12: System Design Review (SDR) Delta	3Q						
Advanced Capability Build-12: System Specification Review (SSR)		1Q					
Advanced Capability Build-12: Preliminary Design Review (PDR)		1Q					
Advanced Capability Build-12: Critical Design Review (CDR)			1Q				
Advanced Capability Build-12: Test Program Review (TPR)		3Q					
Advanced Capability Build-12: In Progress Review (IPR) #4			3Q				
Advanced Capability Build-14: In Progress Review (IPR) #1			2Q				
NIFC-CA: In Process Review (IPR) 2	4Q						
NIFC-CA: In Process Review (IPR) 3		4Q					
NIFC-CA: In Process Review (IPR) 4			4Q				

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **9999/Congressional Adds**	

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	3.277	12.366	0.000
RDT&E Articles Quantity	0	0	0

FY08 Plan: The Aegis Combat Information Center Virtualization effort (9C12A) ($2.312M) 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 continues the migration to software-bases applications, increasing maintainability and reliability of the combat system. The Smart Integrated Data Environment (9383A) ($965K) is a concept for a fully interactive, ship-wide integration of physical and supporting operations, maintenance, logistics, training and other data. 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.

FY09 PLAN: DDG 51 Permanent Magnet Hybrid Electric Propulsion System (9D75A) ($7.579M) will be used to continue development through design, build and test proof of concept equipment for a hybrid electric drive system. Development of this technology could significantly reduce fuel consumption and increase DDG 51 Class mission effectiveness through longer time on station. Aegis Combat Information Center Modernization (9D74A) ($3.989M) funding is to support development of Combat Information Center Display systems throughout the Surface Navy Fleet beginning with Aegis Class ships. This effort will standardize aging hardware display components and replace with state of art software applications for implementation within the Common Display System. Adaptive Diagnostic Electronic Portable Test Set (9D73A) ($798K) plus up is to support development of new system capabilities for other radar and complex electronic systems and will also provide funding for improved distance support capabilities.