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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604307N: Surface Combatant Cmbt Sys Eng							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	196.993	183.275	193.933	0.000	193.933	212.064	223.936	219.051	179.551	Continuing	Continuing
1447: Surf Combatant Combat System Imp	192.206	177.699	193.933	0.000	193.933	212.064	223.936	219.051	179.551	Continuing	Continuing
9999: Congressional Adds	4.787	5.576	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	28.936
A. Mission Description and Budget Item Justification											
<p>This project provides Cruiser &amp; 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</p>											

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0604307N: Surface Combatant Cmbt Sys Eng			
BA 5: Development & Demonstration (SDD)					
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 will 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 Destroyer upgrades will consist of Naval Integrated Fire Control 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 NIFC-CA, Standard Missile-6 (SM-6), Common Display System (CDS), and Common Processor System (CPS). Aegis Advanced Capability Build 14 (ACB14) will be limited to a combination of capabilities outlined in OPNAV's ACB14 Development Guidance Letter: Integration of MMSP for Baseline IV CG's, Aegis BMD, MH-60R, IFF Mode S, DWC, SEWIP BLK II, C5I updates, training and selected Small Business Innovation Research (SBIR).					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	200.271	178.459	0.000	0.000	0.000
Current President's Budget	196.993	183.275	193.933	0.000	193.933
Total Adjustments	-3.278	4.816	193.933	0.000	193.933
• Congressional General Reductions		-0.764			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	-0.020			
• Congressional Adds		5.600			
• Congressional Directed Transfers		0.000			
• Reprogrammings	2.184	0.000			
• SBIR/STTR Transfer	-5.462	0.000			
• Program Adjustments	0.000	0.000	193.933	0.000	193.933
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 9999: Congressional Adds					
Congressional Add: Advanced Capability Build 12 and 14					
Congressional Add: Aegis Research and Development					
Congressional Add: Adaptive Diagnostic Electronic Portable Testset (A					
Congressional Add: Aegis Combat Information Center Modernization					
	FY 2009	FY 2010			
	0.000	1.593			
	0.000	3.983			
	0.798	0.000			
	3.989	0.000			
	4.787	5.576			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification: PB 2011 Navy</b>		<b>DATE:</b> February 2010	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>	
<b><u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u></b>		<b>FY 2009</b>	<b>FY 2010</b>
Congressional Add Subtotals for Project: 9999			
Congressional Add Totals for all Projects		4.787	5.576
<b><u>Change Summary Explanation</u></b>			
FY09 SBIR/STTR Transfer -5.462			
Program Adjustment 2.184			
Total -3.278			
FY10 Congressional Add 5.600			
Congressional Adjustment -0.784			
Total 4.816			
FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Navy								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>				<b>PROJECT</b> 1447: <i>Surf Combatant Combat System Imp</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1447: <i>Surf Combatant Combat System Imp</i>	192.206	177.699	193.933	0.000	193.933	212.064	223.936	219.051	179.551	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	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 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 -

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12 (ACB-12/TI-12) (AEGIS Modernization) baseline will 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 Destroyer upgrades will consist of NIFC-CA, SM-6, CDS, CPS, MMSP, and BMD. ACB-12 Cruiser Upgrades will consist of NIFC-CA, SM-6, CDS, and CPS. Aegis ACB14 will be limited to a combination of capabilities outlined in OPNAV's ACB14 Development Guidance Letter: Integration of MMSP for Baseline IV CG's, Aegis BMD, MH-60R, IFF Mode S, DWC, SEWIP BLK II, C5I updates, training and selected SBIR.						
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
ADVANCED CAPABILITY BUILD-12 DELTA CONFIGURATION (DDG 113)  FY 2010 Plans: Evaluate and update Aegis specification for the integration of ship specific configuration changes identified for DDG 113. Start Computer Program development.  FY 2011 Base Plans: Continue Code development and start land-based testing to evaluate computer program maturity for Aegis ACB12 DDG 113 delta configuration.		0.000	9.859	34.200	0.000	34.200
AEGIS DEVELOPMENT SUPPORT  FY 2009 Accomplishments: Provided AEGIS Development Support for the following: 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) Obsolescence issue resolution to support in-service AEGIS Ships and address computer program modification to enable integration of replacement parts. AEGIS Development Support in FY09 is primary support of ACB-12 / TI-12 Development and Test Programs.		20.079	38.522	33.916	0.000	33.916

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2010 Plans:</i></p> <p>Continue to provide AEGIS Development Support for the following: 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 &amp; 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) Obsolescence issue resolution to support in-service AEGIS Ships and address computer program modification to enable integration of replacement parts. AEGIS Development Support in FY09 is primary support of ACB-12 / TI-12 Development and Test Programs.</p> <p><i>FY 2011 Base Plans:</i></p> <p>Continue to provide AEGIS Development Support for the following: 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 &amp; 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) Obsolescence issue resolution to support in-service AEGIS Ships and address computer program modification to enable integration of replacement parts. AEGIS Development Support in FY09 is primary support of ACB-12 / TI-12 Development and Test Programs.</p>					
TECHNOLOGY INSERTION (TI08)  <i>FY 2009 Accomplishments:</i> Integration of Technology Insertion-08 (TI-08) within Aegis Advanced Capability Build - 08 (ACB-08).	8.730	0.000	0.000	0.000	0.000

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Continued integration testing of Technology Insertion - 08 (TI-08) and resolve all issues related to Combat System Integration.						
ADVANCED CAPABILITY BUILD-ACB 08  FY 2009 Accomplishments: Completed Computer Program development for upgraded capabilities and functionality. Continued Computer Program Testing of Advanced Capability Build - 08 (ACB-08) in support of Certification. Development and Evaluate RCIP capabilities for potential ACB-08 integration.  FY 2010 Plans: Computer Program Certification completed in October FY10. Evaluate RCIP Approved Capabilities for fielding in ACB 08 platforms and following development efforts.  FY 2011 Base Plans: Evaluate RCIP Approved Capabilities for fielding in ACB-08 platforms and following development efforts.		24.050	6.970	1.600	0.000	1.600
TECHNOLOGY INSERTION (TI 12)  FY 2009 Accomplishments: Completed Preliminary Design Review (PDR) and supported the Critical Design Review (CDR) for Common Display Systems (CDS). Supported TI-12 System Specification. Reviewed (SSR) and PDR to address Common Processor System (CPS). Continued CDS and CPS Integration within TI 12.  FY 2010 Plans: Support Aegis ACB 12 Test efforts to address and resolve hardware related issues.		6.913	9.566	3.175	0.000	3.175

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Support Aegis ACB 12 / TI 12 Development effort focusing on the integration of various hardware components including CDS, CPS, Network and LAN to ensure all hardware requirements are understood and implemented for Combat System equipment.						
ADVANCED CAPABILITY BUILD-ACB 12  FY 2009 Accomplishments: Completed ACB12 Preliminary Design Review and started Combat System code development efforts. Completed Test Program Review (TPR) to define development test effort. Completed technical efforts required to support the successful completion of Critical Design Review in Nov 2009.  FY 2010 Plans: Complete Critical Design Review and execute Test Program. Continue Computer Program development efforts and integration of new functionality.  FY 2011 Base Plans: Complete Test Readiness Review (TRR) and start initial system test of Aegis Advanced Capability Build - 12.		70.557	79.459	72.405	0.000	72.405
ADVANCED CAPABILITY BUILD-ACB 14  FY 2010 Plans: Commence development efforts for MH-60R, MMSP, and Aegis BMD capabilities within the Aegis ACB14 Combat System. Aegis ACB14 scope will be limited to a combination of capabilities outlined in OPNAV's ACB14 Development Guidance Letter: Integration of MMSP for Baseline IV CG's, Aegis BMD, MH-60R, IFF Mode S, DWC, SEWIP BLK II, C5I updates, training and selected SBIR.		0.000	8.645	27.140	0.000	27.140

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Complete System Specification Review (SSR) and System Design Review (SDR) to support and address ACB14 system requirements.						
MULTI MISSION SIGNAL PROCESSOR  FY 2009 Accomplishments: FY09 Accomplishment: Completed Critical Design Review (CDR). Provide Multi Mission signal processor to Land Based Test Site.		41.549	0.000	0.000	0.000	0.000
NAVAL INTEGRATED FIRE CONTROL-COUNTER AIR  FY 2009 Accomplishments: Completed In-Progress Review (IPR). Conducted performance analysis and trade studies, modeling studies SM-6 algorithmic studies and complete simulation to assist in design development. Supported the NIFC-CA Critical Design Review development efforts for Aegis ACB-12.  FY 2010 Plans: Support the ACB-12 Critical Design Review. Complete ACB-12 computer program modifications to achieve NIFCCA capability. Initiate computer program test. Commence upgrade to White Sands Missile Range (WSMR) Aegis Desert Ship Fire Control System (FCS) to support NIFC-CA test.  FY 2011 Base Plans: Support the NIFC-CA development and integration and test within Aegis ACB-12. Support Desert Ship upgrade and NIFC-CA System of System test events.		19.421	24.678	21.497	0.000	21.497
DAWDF  Defense Acquisition Workforce Development Fund		0.907	0.000	0.000	0.000	0.000

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
FY 2009 Accomplishments: Defense Acquisition Workforce Development Fund											
Accomplishments/Planned Programs Subtotals						192.206	177.699	193.933	0.000	193.933	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• R&D 0604501N: Multi Mission Signal Processor	0.000	32.961	32.607	0.000	32.607	30.948	27.806	16.500	19.476	Continuing	Continuing
• SCN 2122: DDG 51	199.403	2,483.579	2,970.174	0.000	2,970.174	2,171.638	3,414.686	2,059.603	3,802.227	Continuing	Continuing
• OPN 0960: CG Modernization	165.165	313.149	356.958	0.000	356.958	448.737	575.985	632.640	253.809	Continuing	Continuing
• OPN 5246: AEGIS Support Equipment	87.120	101.420	162.307	0.000	162.307	63.039	58.516	81.060	63.485	Continuing	Continuing
• OPN 0900: DDG Modernization	167.048	144.300	296.691	0.000	296.691	293.847	463.051	476.493	410.169	Continuing	Continuing
• R&D 0603879N PU 3031: SIAP (IABM Integration for DDG	40.385	52.497	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	92.882
• R&D 0604378N PU 3159: NIFC-CA	9.287	11.678	21.517	0.000	21.517	19.910	21.791	4.916	5.016	Continuing	Continuing
• OPN 2980: Multi Mission Signal Processor	0.200	18.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
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											

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<p>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.</p> <p><b>E. Performance Metrics</b></p> <p>Combat System development efforts will complete major development milestones. Major milestones for Advanced Capability Build (ACB) 12 include successful completion of Critical design Review in first quarter of FY10, In-Progress Review (IPR) #4 in third quarter of FY10, In-Progress Review (IPR) in first quarter of FY11, Test Readiness Review (TRR) #1 in fourth quarter of FY11, Test Readiness Review (TRR) #2 in fourth Quarter of FY12, and Final Certification in second quarter of FY14. Major milestones for ACB 14 include System Requirements Review (SRR) in second quarter FY11, System Design Review (SDR) in fourth quarter of FY11, Preliminary Design Review (PDR) in third quarter of FY12, and Critical Design Review (CDR) in second Quarter of FY12.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010			
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Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Systems Engineering	SS/CPAF	Lockheed Martin Moorestown, NJ	1,444.969	101.868	Dec 2009	117.989	Dec 2010	0.000		117.989	0.000	1,664.826	Continuing	
Systems Engineering	SS/CPFF	APL Baltimore, MD	31.928	6.520	Nov 2009	6.520	Nov 2010	0.000		6.520	0.000	44.968	Continuing	
Systems Engineering	WR	NSWC Dahlgren, VA	210.586	27.949	Nov 2009	28.112	Nov 2010	0.000		28.112	0.000	266.647	Continuing	
Systems Engineering	SS/CPAF	BAE Systems Rockville, MD	28.984	3.315	Feb 2010	3.315	Feb 2011	0.000		3.315	0.000	35.614	Continuing	
Systems Engineering	WR	NSWC Port Hueneme, CA	39.246	5.853	Nov 2009	6.145	Nov 2010	0.000		6.145	0.000	51.244	Continuing	
Systems Engineering	WR	NWAS Corona, CA	25.607	0.600	Nov 2009	0.600	Nov 2010	0.000		0.600	0.000	26.807	Continuing	
System Engineering	WR	SPAWAR San Diego, CA	8.719	0.380	Nov 2009	0.390	Nov 2010	0.000		0.390	0.000	9.489	Continuing	
Systems Engineering	WR	Various Various	59.248	17.523	Dec 2009	17.120	Dec 2010	0.000		17.120	0.000	93.891	Continuing	
Award fees	SS/CPAF	Lockheed Martin Moorestown, NJ	184.223	7.436	Jul 2010	7.490	Dec 2010	0.000		7.490	0.000	199.149	Continuing	
Award fees	SS/CPAF	BAE Systems Rockville, MD	1.875	0.087	Feb 2010	0.089	Feb 2011	0.000		0.089	0.000	2.051	Continuing	
Award fees	SS/CPAF	Alion Science Washington DC	1.250	0.290	Dec 2009	0.290	Dec 2010	0.000		0.290	0.000	1.830	Continuing	
Award fees	WR	Various Various	4.590	1.644	Jul 2010	1.644	Jul 2011	0.000		1.644	0.000	7.878	Continuing	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: Surface Combatant Cmbt Sys Eng				<b>PROJECT</b> 1447: Surf Combatant Combat System Imp					
<b>Product Development (\$ in Millions)</b>													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			2,041.225	173.465		189.704		0.000		189.704	0.000	2,404.394	
<b>Remarks</b> Consist of multiple performing activities with funding for each no greater than \$1 million per year.													
<b>Test and Evaluation (\$ in Millions)</b>													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	WR	Department of Interior Various	36.990	0.150	Jul 2010	0.150	Jul 2011	0.000		0.150	0.000	37.290	Continuing
Test and Evaluation	WR	NAVAIR Pax River, MD	11.216	0.095	Nov 2009	0.095	Nov 2010	0.000		0.095	0.000	11.406	Continuing
Test and Evaluation	WR	Various Various	22.749	0.147	Jul 2010	0.229	Jul 2011	0.000		0.229	0.000	23.125	Continuing
Subtotal			70.955	0.392		0.474		0.000		0.474	0.000	71.821	
<b>Remarks</b> Consist of multiple performing activities with funding for each no greater that \$1 million per year.													

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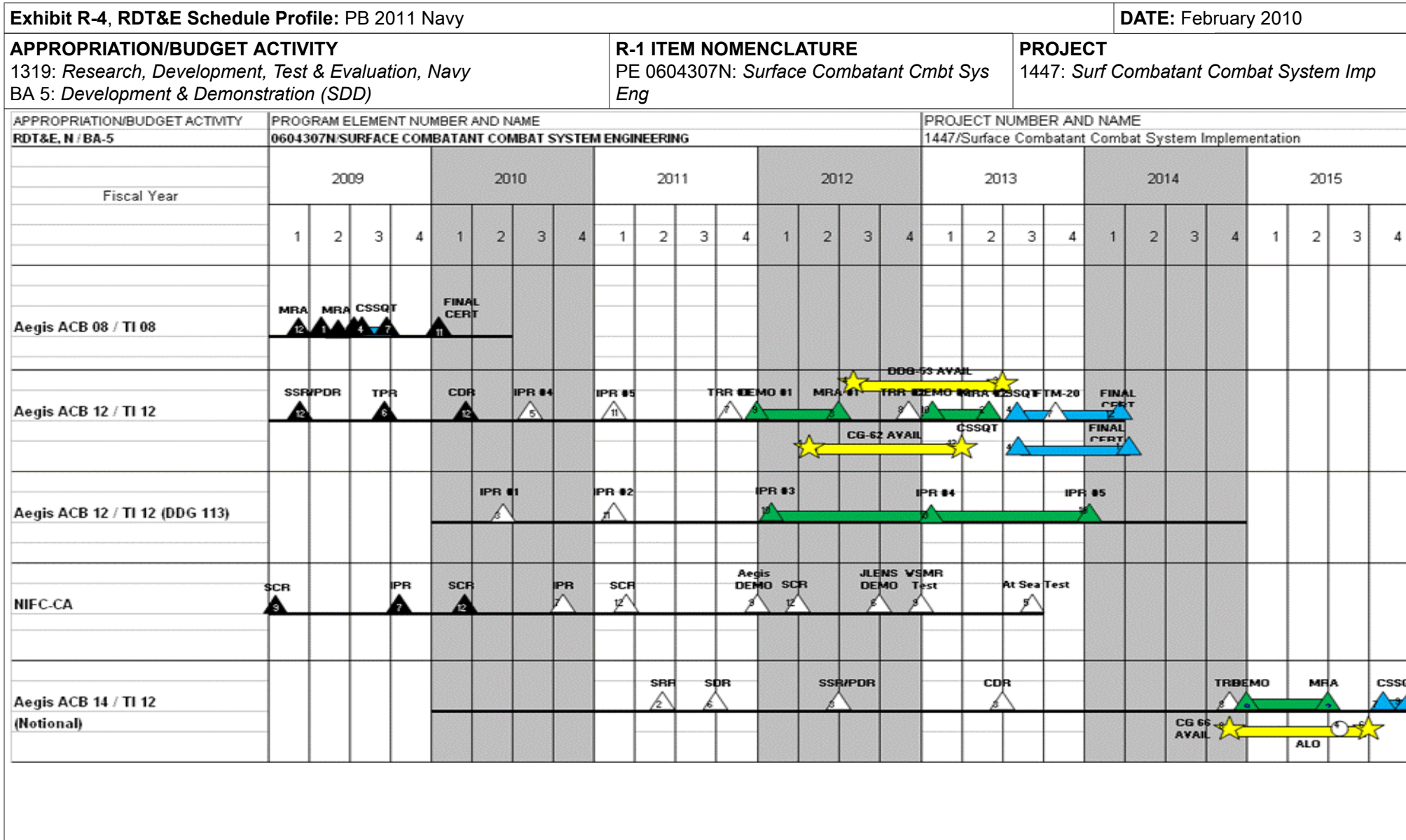
<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Navy</b>											<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>				<b>PROJECT</b> 1447: <i>Surf Combatant Combat System Imp</i>					
<b>Management Services (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Management Support	SS/CPAF	Alion Science Washington DC	19.176	1.115	Feb 2010	1.115	Feb 2011	0.000		1.115	0.000	21.406	Continuing
Program Management Support	SS/CPAF	BAE Systems Rockville, MD	9.626	0.000		0.000		0.000		0.000	0.000	9.626	Continuing
Program Management Support	SS/CPAF	Miscellaneous Various	0.000	1.377	Dec 2009	1.290	Dec 2010	0.000		1.290	0.000	2.667	Continuing
Program Management Support	SS/CPAF	SAIC Mclean, VA	0.000	1.350	Dec 2009	1.350	Dec 2010	0.000		1.350	0.000	2.700	Continuing
DAWDF	Various/ Various	Various Various	0.907	0.000		0.000		0.000		0.000	0.000	0.907	Continuing
<b>Subtotal</b>			29.709	3.842		3.755		0.000		3.755	0.000	37.306	
<b>Remarks</b> Consist of multiple performing activities with funding no greater than \$1 million per year.													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			2,141.889	177.699		193.933		0.000		193.933	0.000	2,513.521	
<b>Remarks</b>													

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2011 Navy			<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>	<b>PROJECT</b> 1447: <i>Surf Combatant Combat System Imp</i>	

## Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
ADVANCED CAPABILITY BUILD-08: MISSION READINESS ASSESSMENT (MRA) FOR DEC 08 unc	1	2009	3	2009
ADVANCED CAPABILITY BUILD-08: MISSION READINESS ASSESSMENT for CSSQT	3	2009	3	2009
ADVANCED CAPABILITY BUILD-08: COMBAT SYSTEM SHIP QUALIFICATION TEST (CSSQT)	3	2009	3	2009
ADVANCED CAPABILITY BUILD-08: FINAL CERTIFICATION/COMPUTER PROGRAM ACCEPTANCE PA	1	2010	1	2010
ADVANCED CAPABILITY BUILD-12: SYSTEM SPECIFICATION REVIEW (SSR)	1	2009	1	2009
ADVANCED CAPABILITY BUILD-12: PRELIMINARY DESIGN REVIEW (PDR)	1	2009	1	2009
ADVANCED CAPABILITY BUILD-12: TEST PROGRAM REVIEW (TPR)	3	2009	3	2009
ADVANCED CAPABILITY BUILD-12: CRITICAL DESIGN REVIEW (CDR)	1	2010	1	2010
ADVANCED CAPABILITY BUILD-12: TEST READINESS REVIEW (TRR)	4	2011	4	2011
ADVANCED CAPABILITY BUILD 12: TEST READINESS REVIEW (TRR) #2	2	2013	2	2013
ADVANCED CAPABILITY BUILD-12: MISSION READINESS REVIEW (MRA)	2	2012	2	2012
ADVANCED CAPABILITY BUILD-12: MISSION READINESS REVIEW (MRA) #2	2	2013	2	2013
ADVANCED CAPABILITY BUILD-12: CSSQT (DDG 53 & CG 52)	3	2013	3	2013
ADVANCED CAPABILITY BUILD-12: COMBAT SYSTEM SHIP QUALIFICATION TEST	3	2013	4	2013
ADVANCED CAPABILITY BUILD-12: FLIGHT TEST MISSION	4	2013	4	2013
ADVANCED CAPABILITY BUILD-12: FINAL CERTIFICATION (DDG 53)	1	2014	1	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604307N: Surface Combatant Cmbt Sys Eng		PROJECT 1447: Surf Combatant Combat System Imp
		Start		End
Event	Quarter	Year	Quarter	Year
ADVANCED CAPABILITY BUILD-12: FINAL CERTIFICATION (CG 62)	2	2014	2	2014
ADVANCED CAPABILITY BUILD-12: (DDG 113) IN PROGRESS REVIEW (IPR) #1	2	2010	2	2010
ADVANCED CAPABILITY BUILD-12: (DDG 113) IN PROGRESS REVIEW (IPR) #2	1	2011	1	2011
ADVANCED CAPABILITY BUILD-12: (DDG 113) IN PROGRESS REVIEW (IPR) #3	1	2012	1	2012
ADVANCED CAPABILITY BUILD-12: (DDG 113) IN PROGRESS REVIEW (IPR) #4	1	2013	1	2013
ADVANCED CAPABILITY BUILD-12: (DDG 113) IN PROGRESS REVIEW (IPR) #5	1	2014	1	2014
NIFC-CA IN PROCESS REVIEW (IPR) 3	4	2009	4	2009
NIFC-CA IN PROCESS REVIEW (IPR) 4	4	2010	4	2010
NIFC-CA AEGIS DEMONSTRATION	4	2011	4	2011
NIFC-CA: JLENS DEMONSTRATION	3	2012	3	2012
NIFC-CA: WSMR TEST	4	2012	4	2012
ADVANCED CAPABILITY BUILD 14: SYSTEM REQUIREMENTS REVIEW (SRR)	2	2011	2	2011
ADVANCED CAPABILITY BUILD 14: SYSTEM DESIGN REVIEW (SDR)	3	2011	3	2011
ADVANCED CAPABILITY BUILD 14: PRELIMINARY DESIGN REVIEW (PDR)	2	2012	2	2012
ADVANCED CAPABILITY BUILD 14: CRITICAL DESIGN REVIEW (CDR)	2	2013	2	2013
ADVANCED CAPABILITY BUILD 14: TEST READINESS REVIEW (TRR)	4	2014	4	2014
ADVANCED CAPABILITY BUILD 14: COMBAT SYSTEM SHIP QUALIFICATION TEST (CSSQT)	4	2015	4	2015

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Navy								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>				<b>PROJECT</b> 9999: <i>Congressional Adds</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
9999: <i>Congressional Adds</i>	4.787	5.576	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	28.936
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
<b>A. Mission Description and Budget Item Justification</b> Congressional Add.											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
							<b>FY 2009</b>	<b>FY 2010</b>			
Congressional Add: Advanced Capability Build 12 and 14  <i>FY 2010 Plans:</i> FY10 Congressional add supports research and development efforts in conjunction with Aegis Advanced Capability Builds (ACB)12 and 14.							0.000	1.593			
Congressional Add: Aegis Research and Development  <i>FY 2010 Plans:</i> FY10 Congressional add supports research and development efforts in conjunction with future Aegis implementations.							0.000	3.983			
Congressional Add: Adaptive Diagnostic Electronic Portable Testset (A							0.798	0.000			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Navy		<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>	<b>PROJECT</b> 9999: <i>Congressional Adds</i>
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>		
	<b>FY 2009</b>	<b>FY 2010</b>
<i>FY 2009 Accomplishments:</i> FY09 Congressional add supports development of Display Systems throughout the Surface Navy Fleet beginning with Aegis Class ships. This effort will standardize aging provide funding for improved distance support capabilities.		
Congressional Add: Aegis Combat Information Center Modernization  <i>FY 2009 Accomplishments:</i> FY09 Congressional add supports development of Display Systems throughout the Surface Navy Fleet beginning with Aegis Class ships. This effort will standardize aging hardware display components and replace them with state of the art software applications for implementation within the Common Display System (CDS).	3.989	0.000
Congressional Adds Subtotals	4.787	5.576
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>D. Acquisition Strategy</b> N/A		
<b>E. Performance Metrics</b> Congressional Add.		

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