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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0604307N / Surface Combatant Cmbt Sys Eng							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	2,924.846	249.939	179.112	443.433	-	443.433	281.888	277.030	288.120	260.948	Continuing	Continuing
1447: Surf Combatant Combat System Imp	2,924.846	246.206	170.118	428.756	-	428.756	271.045	269.192	281.538	255.866	Continuing	Continuing
3357: Aegis Training Improvement Program	0.000	3.733	8.994	14.677	-	14.677	10.843	7.838	6.582	5.082	Continuing	Continuing
Program MDAP/MAIS Code: 180												
A. Mission Description and Budget Item Justification												
This project provides Cruiser and 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: open architecture, advanced information assurance and initial cyber defense, fiber optics, distributed computing architecture, and high performance computing, all of which require corresponding AEGIS Weapon System (AWS) and ACS changes.												
B. Program Change Summary (\$ in Millions)				FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total				
Previous President's Budget				206.298	189.112	300.374	-	300.374				
Current President's Budget				249.939	179.112	443.433	-	443.433				
Total Adjustments				43.641	-10.000	143.059	-	143.059				
• Congressional General Reductions				-	-							
• Congressional Directed Reductions				-	-10.000							
• Congressional Rescissions				-	-							
• Congressional Adds				-	-							
• Congressional Directed Transfers				-	-							
• Reprogrammings				50.921	-							
• SBIR/STTR Transfer				-7.279	-							
• Program Adjustments				-	-	146.982	-	146.982				
• Rate/Misc Adjustments				-0.001	-	-3.923	-	-3.923				
Change Summary Explanation												
FY14 1447:												
OMNIBUS reprogramming: Increase due to development and integration of Fleet Combatant Commanders' Urgent Operational Needs (UONs), including Naval Integrated Fire Control - Counter Air (NIFC-CA) and SM-6, into AEGIS Advanced Capability Build (ACB)12 (BL 9.A1) for backfit to CG 52-58.												
FY15 1447:												

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Reduction for Surface combatant development and integration support program growth.		
FY16 1447: Increase due to the following: Development and Integration of SM-6 BLK IA and NIFC-CA 2019 into AEGIS ACB 16 (BL 9.C2) Program of Record in support of Ballistic Missile Defense (BMD) Sea Based Terminal capability and air defense improvements against large missile raids. Addition of Warfighting Improvements (NIFC-2019, BMD improved threat set, Surface Electronic Improvement Program (SEWIP) BLK II) into AEGIS ACB 20. AEGIS BL 9.A1 (Cruiser Backfit) Development and Integration Introduction of SEARAM into AEGIS BL 5.3 Program of Record. Increased operations and maintenance of the AEGIS Combat System Engineering Development Site (CSEDS) facility to support BL 9.C2, ACB 20, BL 9.A1 and SEARAM integration (4 modified or additional combat system suites) Far Term Interoperability Improvements Project to integrate Digital Air Control and Identify Friend or Foe (IFF) Mode 5/S.		
FY16 3357: Increase to address additional AEGIS ACB16 (BL 9.C2) Training Improvements in support of the additional warfighting scope.		

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Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604307N / Surface Combatant Cmbt Sys Eng				Project (Number/Name) 1447 / Surf Combatant Combat System Imp			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
1447: Surf Combatant Combat System Imp	2,924.846	246.206	170.118	428.756	-	428.756	271.045	269.192	281.538	255.866	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides AEGIS Cruiser & Destroyer ACS upgrades and integrates new equipment and systems to pace the threat and capture advances in technology. The ACS capabilities have continually evolved starting with AEGIS Baseline (BL) 2 on Guided Missile Cruisers (CG) 52-58, BL 3 on CG 59-64, and BL 4 on CG 65-73. In FY 1992, AEGIS BL 5 was introduced on Guided Missile Destroyer (DDG) 51-78, BL 6 on DDG 79-90, BL 7 on DDG 91-112, and BL 9 113 and follow.

The AEGIS Modernization Baselines will provide new technology to replace aging military equipment, extend service life, and maintain combat viability of AEGIS combatants into the future. These baselines reduce combat system maintenance life cycle costs and streamline the development of capabilities. AEGIS BL 8 (Cruiser Modernization) upgraded CG 52-58, while AEGIS BL 9, consisting of an upgraded computing infrastructure and computer program enhancements, will modernize CGs 59,60,62 and DDG 51,52,53,57,61,65,69,and 80. AEGIS BL 9 will provide updated computer program to CG 52-58 to improve warfighter effectiveness by introducing Naval Integrated Fire Control - Counter Air (NIFC-CA), SM-6 and Fleet UONs and reduce the number of AEGIS Baselines within the AEGIS Fleet. AEGIS BL 9 will also be introduced on the new construction destroyers, starting with DDG 113 and follow.

AEGIS Advanced Capability Build (ACB) 16 and the required Technical Insertion (TI) 16 Computing and Display Plant will provide warfighter upgrades to AEGIS Destroyers to include improved Ballistic Missile Defense (BMD) capabilities, SEWIP BLK II, MH-60R Integration, IFF Mode 5/S, SPQ-9B, Total Ship Training Capability (TSTC), NIFC-CA 2019, and other capabilities to address future emerging threats.

AEGIS Advanced Capability Build (ACB) 20 and Technical Insertion (TI) 20 will provide critical warfighter upgrades and Cyber Task Force upgrades to AEGIS Destroyers. ACB 20 combat system development and integration efforts will support the Air Missile Defense Radar (AMDR) acquisition milestone requirements and build upon ACB 16 to form the foundation for the AEGIS Flight III DDG Combat System. Provide Computer program updates that are backfittable to AEGIS TI 16 hardware configurations.

AEGIS BL 7.2 will provide a common Computer Program build that consolidates 2 (BL 7.1.3 and BL 7.1R) to one software configuration (BL 7.2) for a 22 ship superset (DDG 91-112). Also addresses operations and maintenance deficiencies to improve warfighting readiness and delivers critical warfighting improvements in air defense.

AEGIS Far Term Interoperability Improvement Plan will address the remaining interoperability issues within fielded AEGIS Combat System configurations to improve the use of Digital Air Control and Identify Friend or Foe (IFF) capabilities. These updates will be implemented in a phased approach to align with current and future AEGIS development efforts.

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AEGIS BL 5.3 SEARAM Integration and Test program will introduce SEARAM as part of the AEGIS Combat System to address Combatant Commander requirements to improve warfighter capabilities against advanced anti-ship cruise missiles. These updates will be focused on completing integration and test requirements to validate the performance of the integrated capability. These updates will support Demonstration and Operational Test efforts planned for FY16/17.						
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: AEGIS DEVELOPMENT SUPPORT		41.065	34.870	53.032	-	53.032
Articles:		-	-	-	-	-
FY 2014 Accomplishments: Provided AEGIS development support for the following: CSEDS, Program Generation Center (PGC), and Naval System Computing Center (NSCC) in support of AEGIS computer program development, testing, and integration for all AWS products. Provided systems engineering for labs and field activities, program management support, modeling & simulation, requirements management, warfighting capability integration assessments, and conceptual studies. Provided computer program license funding to support land-based test site installation, development and test efforts. Provided Commercial Off The Shelf (COTS) issue resolution to support AEGIS Ships and address computer program modification to enable integration of replacement parts. AEGIS development supported AEGIS ACB12 (BL 9.A0/9.C0/9.C1), AEGIS BL 7.2A/B and AEGIS ACB16 (9.C2).						
FY 2015 Plans: Plan to provide AEGIS development support for the following: Combat System Engineering Development Sites (CSEDS), Program Generation Center (PGC), and Naval System Computing Center (NSCC) in support of AEGIS computer program development, testing, and integration for all AWS products. Provide systems engineering for labs and field activities, program management support, modeling & simulation, requirements management, warfighting capability integration assessments, and conceptual studies. Provide computer program license funding to support land-based test site installation, development and test efforts. Provide COTS issue resolution to support AEGIS Ships and address computer program modification to enable integration of replacements parts. AEGIS development support in FY15 for AEGIS ACB12 (BL 9.C0/9.C1), AEGIS BL 7.2A/B, AEGIS ACB16 (9.C2) and AEGIS ACB 20 (BL 9.CX, BL 10.C0).						
FY 2016 Base Plans: Plan to provide AEGIS development support for the following: Combat System Engineering Development Sites (CSEDS), Program Generation Center (PGC), and Naval System Computing Center (NSCC) in support of AEGIS computer program development, testing, and integration for all AWS products. Increase CSEDS support dues to significant development efforts planned for FY16 and increased number of Combat System suites. Provide systems engineering for labs and field activities, program management support, modeling & simulation,						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
requirements management, warfighting capability integration assessments, and conceptual studies. Provide computer program license funding to support land-based test site installation, development and test efforts. Provide COTS issue resolution to support AEGIS Ships and address computer program modification to enable integration of replacements parts. AEGIS development support in FY16 is for AEGIS ACB12 (BL 9.A1/9.C1), AEGIS BL 7.2A/B, AEGIS ACB16 (9.C2) and AEGIS ACB 20 (BL 9.CX, BL 10.C0). Increased support to identify and implement corrective actions within fielded AEGIS Computer Program configurations to address Interoperability improvements. Increased support required to maintain and operate CSEDS Expansion for increased number of AEGIS Combat System Configurations in support of multiple concurrent BL development efforts.						
FY 2016 OCO Plans: N/A						
Title: ACCELERATED MID-TERM INTEROPERABILITY IMPROVEMENT PLAN (AMIIP)		1.900	-	-	-	-
Articles:		-	-	-	-	-
FY 2014 Accomplishments: Completed support of AEGIS Weapon System computer programs 6.3.3.0, 7.1R.1.0, and 8.1.2.0 throughout installation and test period. Evaluated and resolved critical discrepancies with the AEGIS combat system discovered during installation and testing with SSDS B/L 6 scheduled to certify for fielding third quarter FY14.						
FY 2015 Plans: N/A						
FY 2016 Base Plans: N/A						
FY 2016 OCO Plans: N/A						
Title: FAR TERM INTEROPERABILITY IMPROVEMENT PLAN (FTIIP)		-	-	7.500	-	7.500
Articles:		-	-	-	-	-
FY 2014 Accomplishments: N/A						
FY 2015 Plans:						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A						
FY 2016 Base Plans: Provide cross SYSCOM and cross program office system engineering efforts to identify, evaluate, design, and develop corrective actions within the AEGIS Combat System and in concert with the System of Systems efforts to address Digital Air Control and IFF Mode 5/S. Provide comprehensive plan to implement corrective action in a phased approach in conjunction with ongoing AEGIS development efforts.						
FY 2016 OCO Plans: N/A						
Title: AEGIS BASELINE 7.2A/B		22.900	6.400	6.800	-	6.800
Articles:		-	-	-	-	-
FY 2014 Accomplishments: Conducted IPR No 5. Completed computer program development, Navy Performance testing, Certification Assessments, and Work Package and Technical Documentation development. Conducted Navy Link test, Joint Link test, Integrated Logistic Support Certification, deployment Software System Safety Technical Review Panel/ Weapon System Explosive Safety Review Board (WSESRB), Combat System Certification Panel, and Warfare System Installation Assessments.						
FY 2015 Plans: Perform BL 7.2A installation on lead ship. Support Lead Ship underway assessment and provide Computer Program updates as required to address Combat System issues identified during underway assessment events.						
FY 2016 Base Plans: Support ship installations and provide Computer Program updates to address issues identified during deployment workups in order to improve the Combat Systems Operational effectiveness.						
FY 2016 OCO Plans: N/A						
Title: AEGIS BL 5.3 SEARAM Integration & Test		-	-	13.000	-	13.000
Articles:		-	-	-	-	-
FY 2014 Accomplishments: N/A						
FY 2015 Plans:						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A						
FY 2016 Base Plans: Provide engineering support to integrate and test SEARAM on Forward Deployed Naval Forces (FDNF) AEGIS DDGs. Complete planned In Progress Review(IPR) and Test Readiness Review (TRR) to support the integration, testing and certification of the AEGIS Combat System and Computer Program. Provide engineering support to identify the Demonstration and Operational Testing requirements.						
FY 2016 OCO Plans: N/A						
Title: TECHNOLOGY INSERTION 12		0.900	0.404	-	-	-
Articles:		-	-	-	-	-
FY 2014 Accomplishments: Completed systems engineering support to ACB12 developed and integrated capabilities. Completed computer program development efforts related to AEGIS ACB12. Completed testing and integration of AEGIS ACB12 capabilities and supported Build 16 Mission Readiness Assessment (MRA).						
FY 2015 Plans: Continue systems engineering support to ACB12 developed and integrated capabilities.						
FY 2016 Base Plans: N/A						
FY 2016 OCO Plans: N/A						
Title: ADVANCED CAPABILITY BUILD 12 (BL 9.A0 / 9.C0)		54.900	5.722	-	-	-
Articles:		-	-	-	-	-
FY 2014 Accomplishments: Provided coordination and management for technology insertion TI-12 components in support of AEGIS ACB12 to ensure that hardware and software issues related to integration of Common Display Architecture Display System (CDADS), Secure Voice System (SVS) and SPQ-15 Data Distribution System are addressed. Participated in review and assessment boards to aid prioritization and inclusion in the latest computer program builds, including the planned combat system certification build for Baseline (BL) 9.A0 (ACB12 Cruisers). Supported Build 13 MRA and provided computer program updates to support AEGIS combat system and						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
weapon system certification efforts and Combat System Ship Qualification Trials (CSSQTs) for CG 62, CG 60, and DDG 53, initial installation, check-out and availability testing for DDG 65, DG 52, CG 59 and BL 9A Operational Testing. FY 2015 Plans: Complete certification of BL 9A.0. Continue management and coordination efforts to support BL 9.C0 (Destroyers) at-sea testing and combat system certification. Ensure that ships receive required computer program updates to address radar video, voice communication and controls, console stability and general display stability issues. Complete BL 9C.0 certification. FY 2016 Base Plans: N/A FY 2016 OCO Plans: N/A						
Title: ADVANCED CAPABILITY BUILD 12 (BL 9.C1) Articles:		33.370 -	18.000 -	18.218 -	- -	18.218 -
FY 2014 Accomplishments: Provided system engineering, integration, and test to support AEGIS BL 9 New Construction (NC) Integrated Air & Mlssile Defense (IAMD) DDG. Integrated BL 9 NC IAMD DDG and BMD 5.0 Capability Upgrade (CU) programs; Executed Builds 14, 15, 16, 17, & 18 Computer Program Development and ET&E; Conducted Software System Safety Technical Review Panel (SSSTRP) Updates; Supported Production Hardware Acceptance Test Procedure (ATP); Supported Continuous Joint Assessment of Maintainability (CJAM), Jamming Exercise (JAMEX), System Functional Tests (SFTs), Mission Readiness Assessment and endurance testing. FY 2015 Plans: Continue engineering support to AEGIS ACB 12 (BL 9.C1) to integrate BMD 5.0 CU programs for Joint Assessment of Maintainability (JAM), SSSTRP and WSESRB. Conduct Engineering Assessment, At-Sea testing and Navy Link Certification testing in order to provide Objective Quality Evidence toward BL 9.C1 certification. Implement Computer Program updates to support computer program installation for AEGIS Light-Off (ALO) on DDG 113 and 115, and AEGIS Combat System (ACS) element integration. FY 2016 Base Plans: Continue engineering support to AEGIS ACB 12 (BL 9.C1) efforts to field Combat System Hardware and Software within the AEGIS New Construction Ships DDG 113-115. Provide engineering support to evaluate and						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
support Mission Readiness Assessments as required to support New Construction underway events. Provide Combat System Assessment to support Combat System Certification Panel reviews and support the Certification of AEGIS BL 9.C1. FY 2016 OCO Plans: N/A						
Title: ADVANCED CAPABILITY BUILD 12 (BL 9.A1) Articles: FY 2014 Accomplishments: N/A FY 2015 Plans: Provide system engineering, development, integration and test support to implement AEGIS BL 9.A1 Combat System capability (NIFC-CA and SM-6) using the existing TI 08 Hardware Configuration currently installed on CG 52-58. Provide Computer Program updates to the AEGIS Common Source Library (CSL). Provide System Engineering, Requirements Definition, Integration and Test support to complete In-Progress Review (IPR) #1. Identify hardware changes required to update LBTS (CSEDS/SCSC/ATRC) in support of FY16 Milestones. These efforts are funded by FY 2014 funding. FY 2016 Base Plans: Provide system engineering, development, integration and test support to implement AEGIS BL 9.A1. Support Land Based Test Site hardware updates. Conduct Computer Program Development efforts as part of the AEGIS Common Source Library. Conduct System Level testing to validate Combat System requirements and support Combat System Certification. Provide System Engineering, Requirements Definition, Integration and Test support to complete In-Progress Review (IPR) #2. FY 2016 OCO Plans: N/A		49.195 -	- -	64.300 -	- -	64.300 -
Title: ADVANCED CAPABILITY BUILD 16 / TECHNOLOGY INSERTION 16 (BL 9.C2) Articles: FY 2014 Accomplishments:		27.845 -	62.784 -	112.102 -	- -	112.102 -

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Provided program management, system engineering, development and test, and procurement activities to support AEGIS ACB 16 (BL 9.C2) program development. Prepared for and conducted the ACB 16 System Requirements Review (SRR) and TI 16 Critical Design Review (CDR). Completed development of ACB 16 System Spec (A-Spec), System Subsystem Description Document (SSDD) and other SRR required artifacts. Refined requirements and system architecture. Conducted post-ACB 16 SRR clean-up activities and reviewed artifact. Conducted the AEGIS BL 9.C2 System Functional Review (SFR). Conducted the TI 16 Test Readiness Review (TRR). Conducted requirements and architecture decomposition in support of Preliminary Design Review (PDR) scheduled for the first quarter FY 15. Developed and delivered the Draft Technical Data Packages (TDPs) to support hardware logistics efforts. FY 2015 Plans: Provide program management, system engineering, development and test, and procurement activities to support the AEGIS ACB 16 (BL 9.C2) program development. Conduct AEGIS BL 9.C2 Preliminary Design Review (PDR). Complete development of TI-16 Hardware configuration and execute Operating Environment (OE) development. Complete TI-16 hardware Environmental Qualification Testing (EQT) and update TDPs. Develop allocated baseline subsystem, hardware, and interface specifications. Develop AEGIS BL 9.C2 Computer Program Build 1. FY 2016 Base Plans: Provide program management, system engineering, development and test, and procurement activities to support the AEGIS ACB 16 (BL 9.C2) program development. Complete development and testing of AEGIS BL 9.C2 Computer Program Build 1. Conduct BL 9.C2 Delta SRR, Delta SFR and Delta PDR. Identify updates to support additional NIFC-CA capability. Complete TI 16 Console design and conduct TI 16 Delta PDR and Delta CDR. FY 2016 OCO Plans: N/A						
Title: ADVANCED CAPABILITY BUILD 20 / TECHNOLOGY INSERTION 20 Articles:		14.131 -	41.938 -	153.804 -	- -	153.804 -
FY 2014 Accomplishments: Provided system engineering support to complete Combat System Interface Support Equipment (CS ISE) SRR and Air & Missile Defense Radar (AMDR) CS Integration IPR #3 to identify and implement interface design requirements within the Combat System and AMDR design. Completed draft AMDR Interface Requirements Specifications to support AMDR PDR and CDR. Supported strategic planning efforts for early Combat System Integration and Testing to achieve AMDR Milestone (MS) C. Supported the execution of AMDR HW/SW PDR.						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Provided engineering analysis to identify and prioritize warfighter requirements for senior leadership review and approval. Provided system engineering support to identify and develop TI 20 Hardware requirements in support of AEGIS New Construction and Modernization efforts. FY 2015 Plans: Provide system engineering support to complete artifacts to execute Combat System Interface Support Equipment (CS ISE) SFR and Preliminary Design Review (PDR). Provide system engineering support to complete ACB 20 Naval Capabilities Document (NCD) in support of ACB 20 System Requirements Review (SRR). Continue to evaluate early Combat System Integration and Test strategies to support AMDR MS C. Provide system engineering support to the execution of AMDR HW/SW Critical Design Review (CDR). Provide management, engineering and test support for the planning and execution of land based testing at Advanced Radar Detection Laboratory (ARDEL) to include Combat System Interface Support Equipment (CSISE) development, maintenance and operations. FY 2016 Base Plans: In support of DDG FLT III with AMDR, provide system engineering to complete artifacts to execute Combat System Interface Support Equipment (CS ISE) CDR. Provide system engineering to complete artifacts to execute TI 20 Systems Requirements Reviews (SRR), ACB 20 Systems Requirements Reviews (SRR), ACB 20 System Functional Review (SFR) and TI-20 Test Readiness Review (TRR). Provide system engineering to the execution of AMDR Integration & Testing. Continue to provide management, engineering and test support for the planning and execution of land based testing at Advanced Radar Detection Laboratory (ARDEL) to include Combat System Interface Support Equipment (CSISE) development, maintenance and operations. Perform TI-20 outfitting of the Naval Systems Computing Center (NSCC) and Combat System Engineering Development Site (CSEDS). FY 2016 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	246.206	170.118	428.756	-	428.756

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• R&D 0604501N: <i>Multi Mission Signal Processor</i>	14.376	9.669	13.432	-	13.432	13.853	14.167	14.557	-	Continuing	Continuing

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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• SCN 2122: DDG 51	2,085.115	2,925.090	3,149.703	-	3,149.703	3,353.936	3,440.080	3,543.571	3,633.657	Continuing	Continuing
• OPN 0960: CG Modernization	10.539	-	-	-	-	84.251	108.996	103.036	105.183	Continuing	Continuing
• OPN 5246: AEGIS Support Equipment	59.757	-	-	-	-	-	-	-	-	Continuing	Continuing
• OPN 0900: DDG Modernization	285.994	324.219	364.157	-	364.157	403.782	570.886	507.745	521.562	Continuing	Continuing
• R&D 0604378N	20.937	15.263	23.695	-	23.695	28.436	28.062	29.708	28.476	Continuing	Continuing
PU 3159: NIFC-CA											
• OPN 5231: Ship Missile Support Equipment (AEGIS Support Equipment)	-	59.427	127.202	-	127.202	277.438	224.539	199.665	187.862	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
Combat system improvements are implemented in baselines as described in the project mission statement. 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 computer 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 Computer Program (GFCP) deliverable to the Production Test Center for equipment test and check out. Future Combat System deliveries will be provided in Advanced Capability Builds (ACBs) and Technology Insertions (TIs) using the Combat System Engineering Agent (CSEA) contract. Additional modifications to the existing contracts will address B/L 9 completion (new construction), ACB 16 additional warfighting improvements, and ACB 20 engineering development efforts related to DDG FLT III, as approved by OPNAV.											
E. Performance Metrics											
Combat system development efforts will complete major development milestones. Major Milestones for ACB 12 (BL 9.A0/9.C0): Completed Mission Readiness Assessment #1 third quarter of FY14. Completed Mission Readiness Assessment #2 third quarter of FY14. BL 9.A0 Combat System Certification Panel second quarter of FY15. Mission Readiness Assessment #3 second quarter of FY15. Mission Readiness Assessment #4 third quarter of FY15. BL 9.A0 Combat System Certification Panel fourth quarter of FY15.											
Major Milestones for ACB 12 (BL 9.C1):											

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Completed In-Progress Review (IPR) in second quarter of FY14. Completed Engineering Assessment in first quarter of FY15. DDG 113 / 115 AEGIS Light-Off (ALO) in fourth quarter of FY15. DDG 113 / 115 Sea Trials A/B/C in second-fourth quarters of FY16. Major Milestones for ACB 12 (BL 9.A1): In-Progress Review (IPR) #1 in second quarter of FY15. LBTS Upgrades first quarter of FY16. In-Progress Review (IPR) #2 in fourth quarter of FY16. BL 9.A1 Combat System Certification Panel third quarter of FY18. Major Milestones for ACB 16 (BL 9.C2): Completed ACB 16 System Requirements Review (SRR) first quarter FY14. Completed TI 16 Critical Design Review (CDR) first quarter FY14. Completed ACB 16 System Functional Review (SFR) second quarter FY14. Completed TI 16 Test Readiness Review (TRR) third quarter FY14. Completed ACB 16 Preliminary Design Review (PDR) first quarter FY15. ACB 16 Delta System Requirements Review (SRR) first quarter FY16. ACB 16 Delta System Functional Review (SFR) second quarter FY16. ACB 16 Delta Preliminary Design Review (PDR) fourth quarter FY16. ACB 16 Critical Design Review (CDR) second quarter FY17. ACB 16 Test Readiness Review (TRR) second quarter FY18. ACB 16 Demonstration Test (DEMO) third quarter FY18. ACB 16 AEGIS Light-Off (ALO) third quarter FY19. Major Milestones for ACB 20 / TI 20: Completed Combat System Interface Support Equipment System Requirements Review (SRR) first quarter FY14. Completed Combat System Interface Support Equipment In Progress Review #3 (IPR) third quarter FY14. Completed Combat System Interface Support Equipment System Functional Review (SFR) first quarter FY15. Combat System Interface Support Equipment Preliminary Design Review (PDR) third quarter FY15. ACB 20 System Requirements Review (SRR) first quarter FY16. TI 20 System Requirements Review (SRR) first quarter FY16. ACB 20 System Functional Review (SFR) second quarter FY16. Combat System Interface Support Equipment Critical Design Review (CDR) second quarter FY16. TI 20 Test Readiness Review (TRR) fourth quarter FY16.		

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	Project (Number/Name) 1447 / <i>Surf Combatant Combat System Imp</i>
ACB 20 Preliminary Design Review (PDR) first quarter FY17. TI 20 Preliminary Design Review (PDR) first quarter FY17. Combat System Interface Support Equipment Delivery fourth quarter FY17. ACB 20 Critical Design Review (CDR) second quarter FY18. TI 20 Critical Design Review (CDR) second quarter FY18. ACB 20 Test Readiness Review (TRR) second quarter FY19. ACB 20 Demonstration Test (DEMO) fourth quarter FY19. ACB 20 AEGIS Light-Off (ALO) fourth quarter FY20. Major Milestones for AEGIS Baseline 7.2 (formerly 7.1R Backfit): Completed AEGIS 7.2 ILS Certification in third quarter FY14. Combat System Certification Panel BL 7.2.0 in fourth quarter FY14. Lead Ship Installation from fourth quarter FY14 through second quarter FY15. Combat System Certification Panel BL 7.2.1 in second quarter FY15. Major Milestones for AEGIS BL 5.3 SEARAM Integration: In Progress Review (IPR) #1 second quarter FY16. Test Readiness Review (TRR) second quarter FY16. Underway Testing third quarter FY16 to second quarter FY17. Major Milestones for Far Term Interoperability Improvement Plan (FTIIP): Kickoff first quarter FY16. In-Progress Review (IPR) #1 in third quarter FY16. In-Progress Review (IPR) #2 in fourth quarter FY17. In-Progress Review (IPR) #3 in fourth quarter FY18. In-Progress Review (IPR) #4 in fourth quarter FY19.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604307N / Surface Combatant Cmbt Sys Eng				Project (Number/Name) 1447 / Surf Combatant Combat System Imp					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	1,916.984	158.230	Oct 2013	99.114	Oct 2014	289.792	Oct 2015	-		289.792	Continuing	Continuing	Continuing
Systems Engineering	SS/CPFF	APL : Baltimore, MD	60.863	7.354	Oct 2013	7.398	Oct 2014	11.155	Oct 2015	-		11.155	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC : Dahlgren, VA	347.964	31.980	Oct 2013	28.316	Oct 2014	48.650	Oct 2015	-		48.650	Continuing	Continuing	Continuing
Systems Engineering	SS/CPAF	BAE Systems : Rockville, MD	44.371	4.294	Oct 2013	3.237	Oct 2014	6.532	Oct 2015	-		6.532	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC : Port Hueneme, CA	63.309	6.915	Oct 2013	4.941	Oct 2014	7.290	Oct 2015	-		7.290	Continuing	Continuing	Continuing
Systems Engineering	WR	NWAS : Corona, CA	28.909	2.157	Oct 2013	0.866	Oct 2014	3.950	Oct 2015	-		3.950	Continuing	Continuing	Continuing
Systems Engineering	WR	SPAWAR : San Diego, CA	10.563	0.814	Oct 2013	0.615	Oct 2014	0.615	Oct 2015	-		0.615	Continuing	Continuing	Continuing
Systems Engineering	WR	Various : Various	130.623	10.817	Oct 2013	13.355	Oct 2014	11.621	Oct 2015	-		11.621	Continuing	Continuing	Continuing
Award fees	SS/CPAF	Lockheed Martin : Moorestown, NJ	217.319	15.498	Oct 2013	6.432	Oct 2014	38.845	Oct 2015	-		38.845	Continuing	Continuing	Continuing
Award fees	SS/CPAF	BAE Systems : Rockville, MD	2.316	0.163	Oct 2013	0.124	Oct 2014	1.250	Oct 2015	-		1.250	Continuing	Continuing	Continuing
Award fees	SS/CPAF	Alion Science : Washington DC	2.134	-	Oct 2013	-	Oct 2014	0.786	Oct 2015	-		0.786	-	2.920	-
Award fees	WR	Various : Various	8.226	0.570	Oct 2013	0.433	Oct 2014	0.251	Oct 2015	-		0.251	Continuing	Continuing	Continuing
Subtotal			2,833.581	238.792		164.831		420.737		-		420.737	-	-	-
Remarks															
Various Performing Activities consist of multiple performing activities with funding for each no greater than \$1 million per year. These larger performing activities include CDSA Dam Neck and NSWC/Crane.															
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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 : Boise, Idaho	39.615	1.103	Oct 2013	0.830	Oct 2014	0.950	Oct 2015	-		0.950	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604307N / Surface Combatant Cmbt Sys Eng				Project (Number/Name) 1447 / Surf Combatant Combat System Imp					
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	WR	NAVAIR : Pax River, MD	12.999	0.777	Oct 2013	0.587	Oct 2014	0.987	Oct 2015	-		0.987	Continuing	Continuing	Continuing
Subtotal			52.614	1.880		1.417		1.937		-		1.937	-	-	-
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	SS/CPAF	Alion Science : Washington DC	25.824	1.936	Oct 2013	1.451	Oct 2014	1.511	Oct 2015	-		1.511	Continuing	Continuing	Continuing
Program Management Support	SS/CPAF	SAIC : Mclean, VA	11.920	3.598	Oct 2013	2.419	Oct 2014	3.671	Oct 2015	-		3.671	Continuing	Continuing	Continuing
DAWDF	Various	Various : Various	0.907	-		-		0.900	Oct 2015	-		0.900	-	1.807	-
Subtotal			38.651	5.534		3.870		6.082		-		6.082	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			2,924.846	246.206		170.118		428.756		-		428.756	-	-	-
Remarks															

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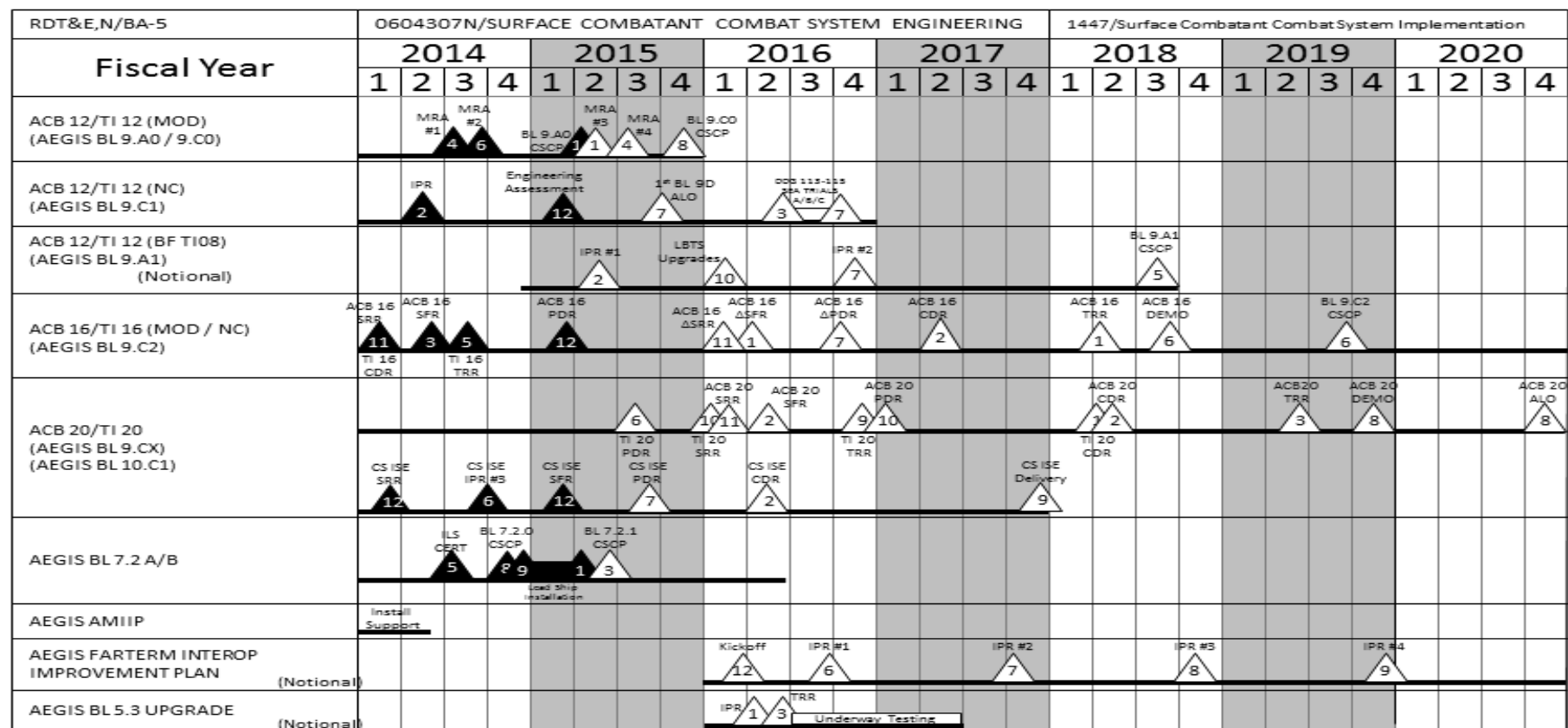
Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity
1319 / 5

R-1 Program Element (Number/Name)
PE 0604307N / Surface Combatant Cmbt
Sys Eng

Project (Number/Name)
1447 / Surf Combatant Combat System Imp



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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	Project (Number/Name) 1447 / <i>Surf Combatant Combat System Imp</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 1447				
ADVANCE CAPABILITY BUILD 12 (BL 9.A0 / 9.C0): ACB12 (BL 9.A0) MISSION READINESS ASSESSMENT #1	3	2014	3	2014
ADVANCE CAPABILITY BUILD 12 (BL 9.A0 / 9.C0): ACB12 (BL 9.A0) MISSION READINESS ASSESSMENT #2	3	2014	3	2014
ADVANCE CAPABILITY BUILD 12 (BL 9.A0 / 9.C0): ACB 12 (BL 9.A0) COMPUTER PROGRAM CERTIFICATION PANEL	2	2015	2	2015
ADVANCE CAPABILITY BUILD 12 (BL 9.A0 / 9.C0): ACB12 (BL 9.C0) MISSION READINESS ASSESSMENT #3	2	2015	2	2015
ADVANCE CAPABILITY BUILD 12 (BL 9.A0 / 9.C0): ACB12 (BL 9.C0) MISSION READINESS ASSESSMENT #4	3	2015	3	2015
ADVANCE CAPABILITY BUILD 12 (BL 9.A0 / 9.C0): ACB 12 (BL 9.C0) COMPUTER PROGRAM CERTIFICATION PANEL	4	2015	4	2015
ADVANCE CAPABILITY BUILD 12 (BL 9.C1): ACB 12 (BL 9.C1) IN-PROGRESS REVIEW	2	2014	2	2014
ADVANCE CAPABILITY BUILD 12 (BL 9.C1): ACB 12 (BL 9.C1) ENGINEERING ASSESSMENT	1	2015	1	2015
ADVANCE CAPABILITY BUILD 12 (BL 9.C1): ACB 12 (BL 9.C1) DDG 113/115 ALO	4	2015	4	2015
ADVANCE CAPABILITY BUILD 12 (BL 9.C1): ACB 12 (BL 9.C1) DDG 113/115 SEA TRIALS A/B/C	2	2016	4	2016
ADVANCED CAPABILITY BUILD 12 (BL 9.A1): ACB 12 (BL 9.A1) IN-PROGRESS REVIEW #1	2	2015	2	2015
ADVANCED CAPABILITY BUILD 12 (BL 9.A1): ACB 12 (BL 9.A1) LAND BASED TEST SITE UPDATE	1	2016	1	2016

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604307N / Surface Combatant Cmbt Sys Eng		Project (Number/Name) 1447 / Surf Combatant Combat System Imp	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
ADVANCED CAPABILITY BUILD 12 (BL 9.A1): ACB 12 (BL 9.A1) IN-PROGRESS REVIEW #2		4	2016	4	2016
ADVANCED CAPABILITY BUILD 12 (BL 9.A1): ACB 12 (BL 9.A1) COMPUTER PROGRAM CERTIFICATION PANEL		3	2018	3	2018
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) SYSTEM REQUIREMENTS REVIEW		1	2014	1	2014
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): TI 16 (BL 9.C2) CRITICAL DESIGN REVIEW		1	2014	1	2014
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) SYSTEM FUNCTIONAL REVIEW		2	2014	2	2014
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): TI 16 (BL 9.C2) TEST READINESS REVIEW		3	2014	3	2014
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) PRELIMINARY DESIGN REVIEW		1	2015	1	2015
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) DELTA SYSTEM REQUIREMENTS REVIEW		1	2016	1	2016
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) DELTA SYSTEM FUNCTIONAL REVIEW		2	2016	2	2016
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) DELTA PRELIMINARY DESIGN REVIEW		4	2016	4	2016
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) CRITICAL DESIGN REVIEW		2	2017	2	2017
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) TEST READINESS REVIEW		2	2018	2	2018
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) DEMONSTRATION		3	2018	3	2018
ADVANCED CAPABILITY BUILD 16 (BL 9.C2): ACB 16 (BL 9.C2) COMBAT SYSTEM CERTIFICATION PANEL		3	2019	3	2019
ADVANCED CAPABILITY BUILD 20: CS ISE SYSTEM REQUIREMENTS REVIEW		1	2014	1	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015	
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604307N / Surface Combatant Cmbt Sys Eng		Project (Number/Name) 1447 / Surf Combatant Combat System Imp	
	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
ADVANCED CAPABILITY BUILD 20: CS ISE IN-PROGRESS REVIEW #3	3	2014	3	2014
ADVANCED CAPABILITY BUILD 20: CS ISE SYSTEM FUNCTIONAL REVIEW	1	2015	1	2015
ADVANCED CAPABILITY BUILD 20: CS ISE PRELIMINARY DESIGN REVIEW	3	2015	3	2015
ADVANCED CAPABILITY BUILD 20: ACB 20 SYSTEM REQUIREMENTS REVIEW	1	2016	1	2016
ADVANCED CAPABILITY BUILD 20: TI 20 SYSTEM REQUIREMENTS REVIEW	1	2016	1	2016
ADVANCED CAPABILITY BUILD 20: ACB 20 SYSTEM FUNCTIONAL REVIEW	2	2016	2	2016
ADVANCED CAPABILITY BUILD 20: CS ISE CRITICAL DESIGN REVIEW	2	2016	2	2016
ADVANCED CAPABILITY BUILD 20: TI 20 TEST READINESS REVIEW	4	2016	4	2016
ADVANCED CAPABILITY BUILD 20: ACB 20 PRELIMINARY DESIGN REVIEW	1	2017	1	2017
ADVANCED CAPABILITY BUILD 20: TI 20 PRELIMINARY DESIGN REVIEW	1	2017	1	2017
ADVANCED CAPABILITY BUILD 20: CS ISE DELIVERY	4	2017	4	2017
ADVANCED CAPABILITY BUILD 20: TI 20 CRITICAL DESIGN REVIEW	2	2018	2	2018
ADVANCED CAPABILITY BUILD 20: ACB 20 CRITICAL DESIGN REVIEW	2	2018	2	2018
ADVANCED CAPABILITY BUILD 20: ACB 20 TEST READINESS REVIEW	2	2019	2	2019
ADVANCED CAPABILITY BUILD 20: ACB 20 DEMONSTRATION	4	2019	4	2019
ADVANCED CAPABILITY BUILD 20: ACB 20 AEGIS LIGHT-OFF	4	2020	4	2020
AEGIS BL 7.2: AEGIS BL 7.2 ILS CERTIFICATION	3	2014	3	2014
AEGIS BL 7.2: AEGIS BL 7.2.0 COMBAT SYSTEM CERTIFICATION PANEL	4	2014	4	2014
AEGIS BL 7.2: AEGIS BL 7.2 INITIAL INSTALLATION ON LEAD SHIP	4	2014	2	2015
AEGIS BL 7.2: AEGIS BL 7.2.1 COMBAT SYSTEM CERTIFICATION PANEL	2	2015	2	2015
FAR TERM INTEROPERABILITY IMPROVEMENTS PLAN: FTIIP KICKOFF	1	2016	1	2016
FAR TERM INTEROPERABILITY IMPROVEMENTS PLAN: FTIIP IN-PROGRESS REVIEW #1	3	2016	3	2016
FAR TERM INTEROPERABILITY IMPROVEMENTS PLAN: FTIIP IN-PROGRESS REVIEW #2	4	2017	4	2017

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604307N / Surface Combatant Cmbt Sys Eng		Project (Number/Name) 1447 / Surf Combatant Combat System Imp	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
FAR TERM INTEROPERABILITY IMPROVEMENTS PLAN: FTIIP IN-PROGRESS REVIEW #3		4	2018	4	2018
FAR TERM INTEROPERABILITY IMPROVEMENTS PLAN: FTIIP IN-PROGRESS REVIEW #4		4	2019	4	2019
AEGIS BL 5.3.9 SEARAM INT & TEST EFFORT: BL 5.3.9 IN-PROGRESS REVIEW #1		2	2016	2	2016
AEGIS BL 5.3.9 SEARAM INT & TEST EFFORT: BL 5.3.9 TEST READINESS REVIEW		2	2016	2	2016
AEGIS BL 5.3.9 SEARAM INT & TEST EFFORT: BL 5.3.9 UNDERWAY TESTING SUPPORT		2	2016	2	2017

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604307N / Surface Combatant Cmbt Sys Eng				Project (Number/Name) 3357 / Aegis Training Improvement Program			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3357: Aegis Training Improvement Program	-	3.733	8.994	14.677	-	14.677	10.843	7.838	6.582	5.082	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The AEGIS Training Improvement project provides enhancements and upgrades to the Total Ship Training Capability (TSTC) training components within the combat system to address needs for increased training capability and functionality in conjunction with AEGIS Advanced Capability Builds (ACB). These enhancements will address current and future training requirements by implementing new functionality to enable the individual warfighter through distributed battle group events to engage in more complex training requirements to support fleet required training certification events. Capability Development and integration are related to Integrated Air and Missile Defense, Underwater, Surface, and other warfare areas. Capability enhancements and upgrades include development of re-useable common components that can be leveraged by SSDS MK2 combat systems, and/or integration of re-usable common components developed by the TSTC BFTT Program and SSDS MK2 TSTC Training Improvement programs to meet AEGIS combat system training requirements.

TSTC provides realistic joint warfare training across the spectrum of armed conflict, realistic unit level team training in all warfare areas (e.g. NIFC-CA and BMD missions to support IAMD). TSTC provides ships' Commanding Officers and Battle Group/Battle Force Commanders with the ability to conduct coordinated realistic, high stress, combat system level team training as an integral part of the Afloat Training Organization, the Tactical Training Groups and C2F/C3F Fleet Synthetic Trainers (FSTs).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: AEGIS Training Improvement and ACB 16 integration	3.733	8.994	14.677	-	14.677
Articles:	-	-	-	-	-
Description: AEGIS training Improvement project will provide enhancements to training components and increase training functionality in conjunction with AEGIS ACB16 development and integration. These enhancements will address current and future training requirements and implement new functionality to support more complex training requirements related to Underwater, Surface and other warfighter upgrades.					
FY 2014 Accomplishments: Initiated systems engineering efforts for the development and integration of TSTC capabilities to support improved Integrated Air and Missile Defense (IAMD), Anti-Submarine Warfare (ASW) and Surface Warfare (SUW) training. These systems engineering efforts included requirements development of MH-60R constructive simulation, Identification Friend or Foe (IFF) simulator integration, and Cooperative Engagement Capability					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	Project (Number/Name) 3357 / <i>Aegis Training Improvement Program</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
(CEC) trainer integration and integration of Electronic Warfare (EW) and Anti-Submarine Warfare (ASW) trainer upgrades for AEGIS ACB 16/BL9.C2. Completed AEGIS BL9.C2 Systems Requirements Review (SRR) and Systems Functional Review (SFR), which included TSTC requirements that support training updates to support training of the tactical capability improvements. Initiated necessary modifications to AEGIS BL 9 to support a NIFC-CA training capability. These modifications are being applied to AEGIS common source library to allow use on earlier AEGIS combat system baselines. FY 2015 Plans: Continue systems engineering efforts for the development and integration of TSTC capabilities to support improved Integrated Air and Missile Defense (IAMD), Anti-Submarine Warfare (ASW) and Surface Warfare (SUW) training. These systems engineering efforts included requirements development of MH-60R constructive simulation, Identification Friend or Foe (IFF) simulator integration, and Cooperative Engagement Capability (CEC) trainer integration and integration of Electronic Warfare (EW) and Anti-Submarine Warfare (ASW) trainer upgrades for AEGIS ACB 16/BL9.C2. Provide system engineering support to training improvement integration within AEGIS ACB16/BL9.C2. Provide Computer Program updates to implement training requirements associated with AEGIS ACB16 Program of Record. Prepare for and support Preliminary Design Review (PDR) and Critical Design Review (CDR) for AEGIS ACB16. Support integration of Combat System training capabilities. Continue modifications to AEGIS BL 9 to support a NIFC-CA training capability. These modifications are being applied to AEGIS common source library to allow use on earlier AEGIS combat system baselines. FY 2016 Base Plans: Continue development, integration and testing of TSTC enhancements and components into AEGIS ACB 16/BL9.C2. Initiate development of requirements to support TSTC capability improvements to support tactical training requirements of AEGIS ACB 20, to include combat system modifications to support integration of the Air & Missile Defense Radar (AMDR) stimulation capability. Continue to make AEGIS combat system modifications to support migration of TSTC training capability, as components are modernized or new components developed, into a common core system to eliminate redundancies with SSDS. Initiate study to determine method of simulating real world environments within AEGIS shipboard sensors for Anti-Area / Area Denial (A2AD) training.					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>		Project (Number/Name) 3357 / <i>Aegis Training Improvement Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Investigate options to integrate of Full Motion Video capability to provide required realism/fidelity for Surface Warfare Training.					
FY 2016 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	3.733	8.994	14.677	-	14.677
C. Other Program Funding Summary (\$ in Millions) N/A					
Remarks					
D. Acquisition Strategy Efforts will be completed on various contracts to support requirements updates to multiple products that will support Training Integration and Implementation within AEGIS ACB16.					
E. Performance Metrics Training Improvement Program efforts will complete major development milestones. Major Milestones for ACB 16 (BL 9.C2): Completed ACB 16 System Requirements Review (SRR) first quarter FY14. Completed ACB 16 System Functional Review (SFR) second quarter FY14. ACB 16 Preliminary Design Review (PDR) first quarter FY15. ACB 16 Delta System Requirements Review (SRR) fourth quarter FY15. ACB 16 Delta System Functional Review (SFR) second quarter FY16. ACB 16 Delta Preliminary Design Review (PDR) fourth quarter FY16. ACB 16 Critical Design Review (CDR) second quarter FY17. ACB 16 Test Readiness Review (TRR) second quarter FY18. ACB 16 Demonstration Test (DEMO) third quarter FY18. ACB 16 AEGIS Light-Off (ALO) third quarter FY19.					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>				Project (Number/Name) 3357 / <i>Aegis Training Improvement Program</i>					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	Various	Various : Various	0.000	1.956	Oct 2013	4.046	Oct 2014	8.464	Oct 2015	-		8.464	Continuing	Continuing	Continuing
Subtotal			0.000	1.956		4.046		8.464		-		8.464	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering	Various	Various : Various	0.000	1.497	Oct 2013	4.380	Oct 2014	5.564	Oct 2015	-		5.564	Continuing	Continuing	Continuing
Subtotal			0.000	1.497		4.380		5.564		-		5.564	-	-	-
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	C/CPAF	SAIC : McLean VA.	0.000	0.200	Nov 2013	0.406	Oct 2014	0.460	Nov 2015	-		0.460	Continuing	Continuing	Continuing
Professional Support	C/CPAF	ALION : Washington DC	0.000	0.080	Nov 2013	0.162	Oct 2014	0.189	Oct 2015	-		0.189	Continuing	Continuing	Continuing
Subtotal			0.000	0.280		0.568		0.649		-		0.649	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	3.733		8.994		14.677		-		14.677	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy			Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>		Project (Number/Name) 3357 / <i>Aegis Training Improvement Program</i>	

RDT&E,N/BA-5	0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING																3357/AEGIS Training Improvement Program											
Fiscal Year	2014				2015				2016				2017				2018				2019				2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
ACB 16/TI 16 (MOD / NC) (AEGIS BL 9.C2)	ACB 16 SRR	ACB 16 SFR			ACB 16 PDR	ACB 16 ΔSRR	ACB 16 ΔSFR	ACB 16 ΔPDR	ACB 16 CDR				ACB 16 TRR	ACB 16 DEMO							BL 9/C2 CSCP							
	11	3			12	7	1	7	2				1	6							6							

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	Project (Number/Name) 3357 / <i>Aegis Training Improvement Program</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 3357</i>				
ACB16 BL 9.C2: System Requirements Review	1	2014	1	2014
ACB16 BL 9.C2: System Functional Review	2	2014	2	2014
ACB16 BL 9.C2: Preliminary Design Review	1	2015	1	2015
ACB16 BL 9.C2: Delta System Requirements Review	4	2015	4	2015
ACB16 BL 9.C2: Delta System Functional Review	2	2016	2	2016
ACB16 BL 9.C2: Delta Preliminary Design Review	4	2016	4	2016
ACB16 BL 9.C2: Critical Design Review	2	2017	2	2017
ACB16 BL 9.C2: Test Readiness Review	2	2018	2	2018
ACB16 BL 9.C2: Demonstration	3	2018	3	2018
ACB16 BL 9.C2: Advanced Capability Build 16 AEGIS Light-off	3	2019	3	2019