CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION						DATE May 2009	
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**			R-1 ITEM NOMENCLATURE **0603581N/LITTORAL COMBAT SHIP (LCS)**				
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Total PE Cost	309.446	367.840	360.518				
3096 / Littoral Combat Ship	79.055	101.885	121.913				
3129 / LCS Mission Package Development	98.072	169.765	163.145				
4018 / Littoral Combat Ship Construction	121.887	85.917	75.460				
9821A / Remote Operation of Active Sonar Technology (ROAST)	2.319	0.000	0.000				
9B84A / ASW Contact Management Mission Planning Improvement	2.699	0.000	0.000				
9B86A / LCS Mission Package Enterprise	3.862	0.000	0.000				
9B87A / New Payloads and Sensors Unmanned Surface Vehicle	1.552	0.000	0.000				
9D41A / Autonomous Acoustic Array Advanced Tubular Solid Oxide Fuel Cell	0.000	1.995	0.000				
9D42A / LCS Common Mission Package Training Environment	0.000	4.488	0.000				
9D43A / Alternative Use of Mine Warfare Modules	0.000	3.790	0.000				

A. MISSION DESCRIPTION:

This Program Element (PE) provides funds for detailed design, development, construction, integration and testing of the Littoral Combat Ship (LCS). LCS will be a fast, agile, and networked surface combatant with capabilities optimized to defeat asymmetric threats, and assure naval and joint force access into contested littoral regions. It will use open-systems-architecture design, modular weapons, and sensor systems, and a variety of manned and unmanned vehicles to expand the battlespace and project offensive power into the littoral. LCS will operate with focused-mission packages that deploy manned and unmanned vehicles to execute a variety of missions, including littoral anti-submarine warfare (ASW), anti-surface warfare (SUW) and mine countermeasures (MCM). LCS will also possess inherent capabilities, regardless of mission package installed, including intelligence, surveillance, reconnaissance (ISR), homeland defense, Maritime Interdiction/Interception Operations (MIO), anti-terrorism/force protection (AT/FP), air self-defense, joint littoral mobility, and Special Operating Forces (SOF) and logistic support for movement of personnel and supplies. This relatively small, high-speed surface combatant will compliment the U.S. Navy's AEGIS Fleet, DDG 1000, and CG(X) by operating in environments where it is less desirable to employ larger, multi-mission ships. It will have the capability to deploy independently to overseas littoral regions, remain on station for extended periods of time either with a battle group or through a forward-basing arrangement and will be capable of underway replenishment. It will operate with Carrier Strike Groups, Surface Action Groups, in groups of other similar ships, or independently for diplomatic and presence missions. Additionally, it will have the capability to operate cooperatively with the U.S. Coast Guard and Allies.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	R-1 ITEM NOMENCLATURE **0603581N/LITTORAL COMBAT SHIP (LCS)**	

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2008	FY 2009	FY 2010
FY09 President's Budget	304.117	371.008	281.407
FY10 President's Budget	309.446	367.840	360.518
Total Adjustments	5.329	-3.168	79.111
(U) Summary of Adjustments			
Congressional Rescissions	0.000	0.000	0.000
Congressional Adjustments	0.000	-2.731	0.000
SBIR/STTR/FTT Assessment	-4.410	0.000	0.000
Program Adjustments	10.000	0.000	88.473
Rate/Misc Adjustments	-0.261	-0.437	-9.362
Total	5.329	-3.168	79.111

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**				PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	79.055	101.885	121.913				
RDT&E Articles Qty	0	0	0				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Littoral Combat Ship (LCS) will be a fast, agile, and networked surface combatant with capabilities optimized to defeat asymmetric threats, and assure naval and joint force access into contested littoral regions. The threats challenging our naval forces in the littorals include mines, attacks by small surface craft, and quiet diesel submarines armed with a variety of anti-ship weapons. Such threats have great potential to be effectively employed by many less capable countries and non-state actors to prevent access, and use, of littoral areas by U.S. forces.

The LCS will use open-systems-architecture design, modular weapons, and sensor systems, and a variety of manned and unmanned vehicles to expand the battle space and project offensive power into the littoral. LCS will operate with focused-mission packages that deploy manned and unmanned vehicles to execute a variety of missions, including littoral anti-submarine warfare (ASW), anti-surface warfare (SUW) and mine countermeasures (MCM). LCS will also possess inherent capabilities, regardless of mission package installed, including intelligence, surveillance, reconnaissance (ISR), homeland defense, Maritime Interdiction/Interception Operations (MIO), anti-terrorism/force protection (AT/FP), air self-defense, joint littoral mobility, and Special Operating Forces (SOF) and logistic support for movement of personnel and supplies.

This relatively small, high-speed surface combatant will compliment the U.S. Navy's AEGIS Fleet, DDG 1000, and CG(X) by operating in environments where it is less desirable to employ larger, multi-mission ships. It will have the capability to deploy independently to overseas littoral regions, remain on station for extended periods of time either with a battle group or through a forward-basing arrangement and will be capable of underway replenishment. It will operate with Carrier Strike Groups, Surface Action Groups, in groups of other similar ships, or independently for diplomatic and presence missions. Additionally, it will have the capability to operate cooperatively with the U.S. Coast Guard and Allies.

The RDT&E portion of the LCS Program is comprised of design and development efforts required to deliver the Flight 0 Class Ships, including integration with modular MCM, ASW, and SUW mission packages, and construction of the first two Flight 0 Class Ships that will deliver in FY08 and FY09. It includes the design and development effort required to support the introduction of a Flight 0+ baseline for the ships awarded in FY09 and FY10 with the incorporation of lessons learned from the design and construction of LCS 1 and 2, including improved waterjets and a waterjet tunnel extension on the Lockheed Martin (LM) LCS Design. Additionally, it includes design and development efforts required to support the introduction of a new design baseline, including lessons learned from the formal testing of LCS 1 and 2, plus potential standardized components defined in a Navy Design Package.

The LCS Program achieved Milestone A and Program Initiation in May 2004, and underwent a Milestone A update in FY09. Milestone B is planned beyond FY2010.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**

The LCS design and development phases include platform design and development, experimentation and ship system design and integration, hull platform testing, initiation of a Navy Design Package, total ship system engineering and integration, planning and conduct of system testing, including procurement of ordnance.

The R&D portion of LCS funding is also comprised of formal Developmental and Operational Assessment testing of the LCS Ships and Mission Packages. Test and Evaluation will concentrate on verifying integration and interoperability of employed technologies and systems in the LCS Seaframe designs and modular mission packages to achieve the mission capabilities and performance requirements as defined in the LCS Program's Capabilities Development Document (CDD). T&E functions will include the evaluation of Critical Technical Parameters (CTP), Measures of Effectiveness (MOE), Measures of Suitability (MOS), and Key Performance Parameters (KPP) for the core Seaframe and the focused missions. Operational testing will include the conduct of formal LFT&E efforts including Full Scale Shock Trials (FSST).

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
LCS Class Design Services	0.000	25.000	24.000
RDT&E Articles Quantity	0	0	0

Provides for a Class Design Services contract to both industry design teams for continued design refinement of the Flight 0 and 0+ baseline configurations and design development of future LCS Class Ships. The Navy will use the industry designs to develop a Navy Design Package, a technical data and build specifications package that may be used to support future ship acquisitions.

FY 2009: Develop, review, approve and implement various Engineering Change Proposals determined necessary to the Flight 0+ design Seaframe resulting from production design drawing refinement and improvements to systems and components of each design Seaframe. Develop, review, approve and implement various Engineering Change Proposals resulting from system and design improvements. Examples include, Engine Room Airborne Noise Abatement, Multiple Fire Alarm System stations, Anti-Terrorism Force Protection improvements, Production and Modeling and Simulation Improvements. These changes will then be incorporated in the drawing packages used by the shipbuilders as the baseline for production.

FY 2010: Conduct all industry Systems Engineering design activities supporting the completion and transition to detailed design of the Flight 0+ baseline, including all required reporting documentation. Translate the Flight 0+ baseline design drawings and associated documentation, any systems/component standardization along with information obtained as a result of the Post Delivery Test and Trials into a new design baseline, which incorporates production, assembly and fabrication lessons learned from the previous Seaframe as well as operator feedback from the Seaframe and Mission Package crews obtained during the test and trials period. The result of this effort will be new detailed LCS Design Package which may be incorporated as Government Furnished Information into a Request for Proposal solicitation of the future Seaframes.

	FY 2008	FY 2009	FY 2010
LCS Program Management	12.738	9.400	6.000
RDT&E Articles Quantity	0	0	0

Provides for overall LCS Program operations including technical, production, and logistics oversight, and acquisition, contract, Earned Value (EV), risk, S&T and financial management.

FY 2008: Continued support of Joint Requirements Oversight Council (JROC) reviews and conduct Integrated Product Team (IPT) and Overarching Integrated Product Team (OIPT) events in support of Milestone brief to the Defense Acquisition Executive (DAE). Revised acquisition strategy. Continue contract administration of LCS 1 and LCS 2

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**

construction contracts. Continued oversight and analyses of contractor Earned Value (EV). Complete Naval Audit Service reviews of LCS 1 and LCS 2 construction contractors, and continue implementation and monitoring of corrective actions. Completed development of required documentation for proposal solicitation and evaluation for FY09 Flight 0+ Class ships. Conduct source selection for 2 FY09 Flight 0+ Seaframes.

FY 2009: Continue contract administration of LCS 1 & 2 construction contracts, and initiate development of documentation required for contract completion of LCS 1 and LCS 2 construction. Continue oversight and analyses of contractor Earned Value (EV). Conduct strategy and planning activities for source selection for FY09 award of 2 ships. Conduct contract administration transition of new design baseline for Flight 0+ ships under Class Design Services (CDS). Manage execution of LCS 1 & 2 formal Developmental and Operational Testing, including integration efforts with the MCM, ASW and SUW Mission Packages. Conduct strategy and planning activities for source selection for FY10 contract award. Conduct contract administration of the development of a new design baseline, including supporting standardization business cases.

FY 2010: Continue contract administration of transition to new design baseline for Flight 0+ ships. Initiate development of all Milestone B documentation, including new CDD and supporting JROC reviews. Continue to manage execution of LCS 1 & 2 formal Developmental and Operational Testing, including integration efforts with the MCM, ASW and SUW Mission Packages. Conduct contract administration of the development of a new design baseline.

	FY 2008	FY 2009	FY 2010
LCS System-of-Systems Development, Engineering & Experimentation	25.680	37.158	33.106
RDT&E Articles Quantity	0	0	0

Provides for LCS Program Navy systems engineering in support of Flight 0+ and a new baseline design, development, certification, production, including ship system design and integration, combat and C4I design, integration, and test, aviation (manned and unmanned) integration, modular MCM, ASW, and SUW mission package integration, logistics product development and systems engineering activities required to perform risk analyses of new design and production technology concepts.

FY 2008: Continue review of industry engineering, integration, production, and logistics activities that comprise the design and build of the LCS Flight 0 Class Ships. Manage development and approval of technical baselines (Build Specification) and Engineering Change Proposals (ECP). Conduct adjudication of Requests for Deviation/Justification for Technical Deviations. Conduct Independent Verification and Validation (IV&V) for Mission System Ship Integration ICD 1.2 implementation on LCS 1 and LCS 2. Continue development of Tactical Common Data Link (TCDL) solution for LCS integration with Vertical Take-off Unmanned Aerial Vehicle (RQ-8B) (VTUAV). Complete development of LCS Capabilities and Limitations Document. Fund completion of Joint Unmanned Systems Common Control (JUSC2) Advanced Concept Technology Demonstration (ACTD). Initiate GD aluminum structure "grillage" and associated testing. Develop training equipment to support Train to Qualify. Support completion of pre-delivery certifications for LCS 1 and LCS 2. Conduct systems engineering special studies and analyses in response to design, production, and logistics issues. Conduct quality control and assurance efforts. Initiate

preparations for LCS 1 and LCS 2 pre-deployment tests and trials. Conduct Navy systems engineering reviews to support Flight 0 baseline definition for FY09/FY10 awards (Flight 0+). Flight 0+ includes lessons learned, Naval Vessel Rules (NVR), and life-cycle enhancements for waterjets.

FY 2009: Complete review of industry engineering, integration, production, and logistics activities that comprise the design and build of the LCS Flight 0 Class ships. Manage integration of SUW Mission Packages with LCS 1 and 2 and Independent Verification and Validation (IV&V). Implement Tactical Common Data Link (TCDL) integration solution on LCS-1 & 2. Complete GD aluminum "grillage" and associated testing and LM Launch, Recovery and Handling risk reduction testing to raise Technology Readiness Levels. Support completion of post-delivery certifications for LCS 1 and 2. Develop facilities support plans for CONUS locations. Provide systems engineering support for LCS 1 and 2 post-delivery test and trials. Conduct system engineering special studies and analyses in response to emergent design/production issues highlighted in testing. Manage the development, approval, and transition to production of Flight 0+ technical baselines (Build Specifications) and ECPs. Initiate efforts on SH-60B Data link integration. Conduct Spiral Development efforts to support the potential standardization of LCS Combat System, C4I, and HM&E components for the new baseline design LCS by development of business cases for procurement of systems as GFE or CFE, as common systems between the LM and GD designs, or as common with the LCS Mission Packages. For specific systems selected, develop acquisition documentation for the FY10 procurement of LCS (interface control documents, SPDs, etc). Manage the development of the new Navy Design Package baseline.

FY 2010: For LCS 2, continue the review of industry engineering, integration, production, and logistics activities that comprise the integration of the Flight 0+ design in the FY09/FY10 ships. Manage the integration of ASW, SUW, and MCM Mission Packages for LCS 1 and 2 and IV&V. Provide systems engineering support for LCS 1 and 2 post-delivery test and trials. Conduct system engineering special studies and analyses in response to emergent design/production issues highlighted in testing. Complete efforts on SH-60B Data link integration. Complete Spiral Development efforts to support the potential standardization of LCS Combat System, C4I, and HM&E components for the new LCS baseline design. Develop acquisition documentation for the follow-on procurement of LCS (interface control documents, SPDs, etc). Manage the development, approval, and transition to production of new LCS technical baselines (Build Specifications) and ECPs. Develop all required systems engineering Milestone B documents and support the FY10 source selection and award of new baseline LCS ships.

	FY 2008	FY 2009	FY 2010
LCS Total System Training Architecture	17.460	6.103	10.900
RDT&E Articles Quantity	0	0	0

Provides for an LCS with a shipboard and shore-based embedded training capability to satisfy individual, unit, team and force training both in port and at sea, and provides capability to leverage DDG 1000 Total Ship Training System efforts, as well as support LCS Train to Qualify requirements.

FY 2008: Completed LCS 1 Trainer, began LCS 2 (General Dynamics Design) Trainer.
FY 2009: Complete upgrade to LCS 1 (Lockheed Martin Design) Trainer.
FY 2010: Update Trainers to as-built configuration to meet train to qualify certification requirements.

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**	

	FY 2008	FY 2009	FY 2010
LCS Test & Evaluation	23.177	24.224	47.907
RDT&E Articles Quantity	0	0	0

Execute formal LCS Test and Evaluation (T&E) program, Developmental Testing and Operational Testing (DT/OT) including Live Fire Test and Evaluation (LFT&E) and procurement of T&E Ordnance. Developmental Test and Evaluation (DT&E) will concentrate on verifying integration and interoperability of employed technologies and systems in the Sea Frame designs and modular mission packages to achieve the mission capabilities and performance requirements as defined in the LCS Program's Capabilities Development Document (CDD). DT&E functions will include the evaluation of Critical Technical Parameters (CTP), Measures of Effectiveness (MOE), Measures of Suitability (MOS), and Key Performance Parameters (KPP) for the core Seaframe and the focused missions. Operational Testing for the LCS will be conducted in three phases; three phases of IOT&E on each Seaframe design to support the development of the initial seaframe deliveries and a specific mission package, and FOT&E, as required, when new capabilities are developed or refined.

FY 2008: Complete the development of a Flight 0 TEMP based on the currently approved CDD and update, as required, to support the Flight 0+ CDD expected to enter the review cycle early 2008. Complete development of detailed plans for assessment of both LCS Seaframe designs equipped with each focused mission capabilities. Objectives of these events will include assessment of all Seaframe Key Performance Parameters and additional attributes and will be done in conjunction with the Post Delivery Test and Trials (PDT&T) periods of LCS 1 and 2. The planning will include developing detailed scenarios for evaluation of each focused mission capability (MCM, ASW, and SUW) and core Seaframe capability including Air Defense, Surface Warfare (SUW) Self Defense, Aviation capability, Seakeeping/Safe Operating Envelope/Directional Stability trials, and support the conduct of events necessary for the completion of crew certification. Key products to be developed include a TEMP, and Detailed Test Plans and Data Acquisition and Management Plans (DAMP). Continue LFT&E modeling and simulation (M&S), Component & System Shock Tests. Continue review and assessment of industry test activities. Initiate procurement of T&E Ordnance to support LCS Class tests.

FY 2009: Continue LCS LFT&E Modeling and Simulation and validation testing. Initiate LCS 1 and LCS 2 Developmental Testing. DT&E will include the evaluation of Critical Technical Parameters (CTP), Measures of Effectiveness (MOE), Measures of Suitability (MOS), Key Performance Parameters (KPP), and additional attributes for the core Seaframe and the focused mission capabilities. Complete procurement of T&E Ordnance to support LCS 1 and 2 tests and trials. Conduct the following specific tests for LCS 1 and 2:
Aviation Certification Testing (including assessment of TRIGON system on LCS 1, and Dynamic Interface testing of both Seaframes with MH-60 and RQ-8B)
Engineering Operational Sequencing System/Combat System Operational Sequencing System (EOSS/COSS) validation.
Class Tactics Publication validation
Safe Operating Envelope Trials
Underway Replenishment Qualification Trials and Vertical Replenishment Trials
Structural Test Firings (57mm, RAM, Super Rapid blooming Off-board Chaff (SRBOC))
Information Assurance Testing

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**

Dynamic Interface (DI) for the helicopter and VTUAV
HM&E Trials, including machinery vibration trials, full power runs, power and maneuvering tests, and propulsion assessments in sea states 1-7
Mast Cut Out Characterization
Core weapon system (57mm) range banding, warning and disabling tests and casualty firing for both surface and air defense
Radar and Combat System Characterization, including Tracking exercises and jamming exercises
ASW MP integration tests
SUW MP engineering tests with 30mm gun
EMC/EMI Certification
Conduct Human Systems Integration Testing
OCONUS and CONUS Logistics assessments
Conduct the correction of material deficiencies and emergent repairs to equipment that could adversely affect the performance of conducting above LCS class tests

FY 2010: Continue LCS LFT&E Modeling and Simulation and validation testing. Continue LCS 1 and LCS 2 Developmental Testing. Perform Operational Assessments on LCS 1 and 2 with the MCM MP. DT&E will include the evaluation of Critical MCM MP. Conduct TECHEVAL on LCS 1 with the MCM MP. Perform Final Contractor Trials (FCT). DT&E and TECHEVAL will include the evaluation of Critical Technical Parameters (CTP), Measures of Effectiveness (MOE), Key Performance Parameters (KPP), and Additional Attributes for the core Seaframe and focused mission capabilities. Operational Assessment (OA) will include the evaluation of the Critical Operational Issues (COI) for the Seaframes and MCM Mission Package.

Conduct the following specific tests:
Magnetic and Acoustic Trials
Engineering Operational Sequencing System/Combat System Operational Sequencing System (EOSS/CSOSS) validation
Class Tactics Publication validation
OCONUS and CONUS Logistics Assessments
Underway Replenishment Qualification Trials
HM&E Trials, including machinery vibration trials, full power runs, power and maneuvering tests, and propulsion assessments in sea states 1-7
Seaframe Characterization tests including RCS characterization, Infrared (I/R) Visual testing, and Air Traffic Control Beacon System, Identification friend or foe, Mark XII/Mark XIIA, System (AIMS) Trials
Shipboard Electronic Evaluation Facility (SESEF) tests to support Tactical Air Navigation Certification and provide antennae patterns

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
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Developmental testing MCM MP including integration of MPCE and mission systems with each seaframe, launch and recovery of mission systems and conducting MCM mission tests
Develop test plans for Total Ship Survivability Trial (TSST) testing, continue development of Full Scale Shock Trial (FSST) test plans
EMC/EMI Certification with MCM MP
Developmental testing of the ASW MP including integration of ASW Mission Systems and Mission Package Computing Environment (MPCE), launch and recovery of mission systems and conducting ASW mission tests
Developmental testing of the SUW MP including the integration of SUW Mission Systems and MPCE, Structural Test firing of 30mm gun
Operation Assessment for LCS 1 and 2 with the MCM MP
Conduct Human Systems Integration Testing
TECHEVAL of LCS 1 with the MCM MP
Final Contract Trials on LCS 1: a material inspection conducted by INSURV to demonstrate compliance with contract requirements.
Conduct the correction of material deficiencies and emergent repairs to equipment that could adversely affect the performance of testing.

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**	

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2008	FY 2009	FY 2010						Total Cost
BLI 1600 (OPN)	0.000	73.684	137.259						210.943
BLI 2127 (SCN)	0.106	1,016.952	1,380.000						2502.952
BLI 4221 (WPN)	0.000	2.778	0.000						2.778
BLI 0443 (APN)	37.432	50.189	77.616						165.237
BLI 1B4B/14B50 (O&MN)	7.885	11.854	9.296						29.035
BLI 1B5B/15BR0 (O&MN)	22.562	24.804	20.737						68.103
BLI 1C1C/11C70 (O&MN)	0.000	1.551	1.746						3.297

D. ACQUISITION STRATEGY:

The LCS Program takes an evolutionary approach to acquisition that emphasizes completion of two initial Seaframe designs, the LCS Flight 0 Class ships, by two industry teams.

The incorporation of lessons learned from the design, construction, and testing of two ships, as well as introduction of improved waterjets and a waterjet tunnel extension on the LM LCS design will comprise the Flight 0+ baseline awarded in FY09. The LCS Program Acquisition Strategy, uses a limited competition approach for existing industry teams to compete for the construction of Flight 0+ Class Ships in FY10. The LCS Program will concurrently initiate Class Design Services contracts to both industry design teams for conduct of all industry Systems Engineering design activities supporting the completion and transition to production of the Flight 0+ baseline, including all required reporting and development of a Navy Design Package.

The LCS Program achieved Milestone A and Program Initiation in May 2004, and conducted a Defense Acquisition Executive (DAE) review in FY09. Milestone B has been planned beyond FY10.

E. MAJOR PERFORMERS:

Major Contractors:
General Dynamics - Bath Iron Works, Bath, ME
Austal USA, Mobile, AL
Lockheed Maritime Systems and Sensors, Moorestown, NJ
Marinette Marine Corporation, Marinette, WI
Bollinger Shipyards, LA

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
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Government Field Activities:

NSWC Dahlgren, Dahlgren, VA

NSWC Carderock, Philadelphia, PA

Space and Naval Warfare Command (SPAWAR), Charleston, SC

NSWC Port Hueneme, Port Hueneme, CA

Universities:

Johns Hopkins University Applied Physics Lab, Laurel, MD

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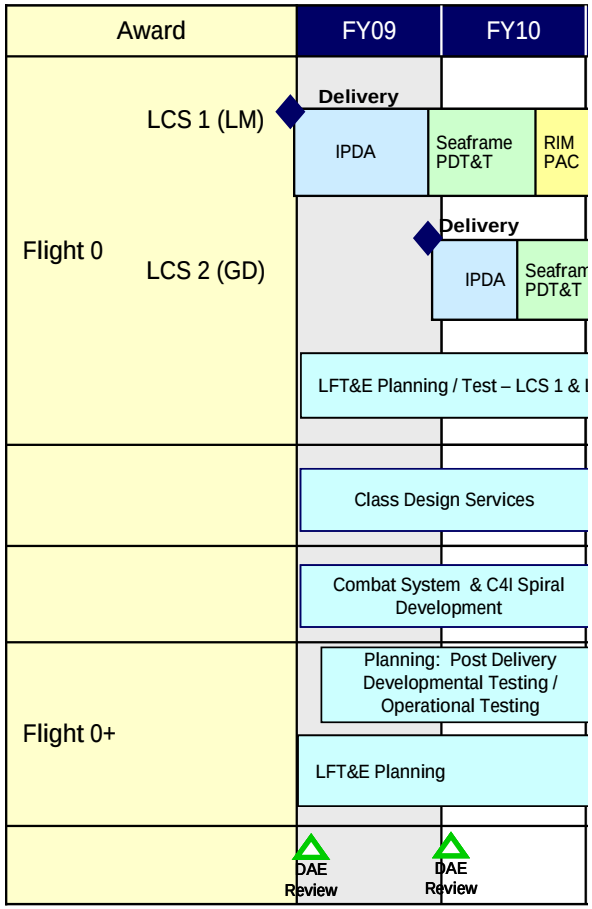
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**		PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**				PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)			FY 2009 Cost ($000)	FY 2009 Award Date	FY 2010 Cost ($000)	FY 2010 Award Date		Total Cost ($000)	Target Value of Contract
Preliminary Design (Flight 0)	Compet	LM, BIW, Raytheon	32.173			0.000		0.000			32.173	0.000
Final Design (Flight 0)	Compet	LM, BIW	175.263			0.000		0.000			175.263	0.000
Class Design Services	Single Src	TBD	4.800			25.000	JUN-09	24.000	OCT-09		63.800	0.000
LCS 1 & 2 Shore Trainers	Cost Plus	LM, BIW	17.760			6.103	MAR-09	10.900	OCT-09		34.763	0.000
SH-60B Datalink	Compet	LM, BIW	0.000			2.435	OCT-08	0.000			2.435	0.000
Flight 0 C4I	SPD	PEO C4I	4.982			0.300	MAR-09	0.291	OCT-09		5.573	0.000
Life Cycle Support Plan	Compet	DCMA/LM	1.000			0.000		0.000			1.000	0.000
Subtotal Product Development			**235.978**			**33.838**		**35.191**			**315.007**	**0.000**
Remarks:												
Government Engineering Support	WX	NSWC/CD, Bethesda, MD	16.503			0.000		0.000			16.503	0.000
Government Engineering Support	WX	NSWC/DD, Dahlgren, VA	24.607			5.000	OCT-08	6.000	OCT-09		36.607	0.000
Government Engineering Support	WX	NSWC/PC, Panama City, FL	22.103			1.500	OCT-08	1.000	OCT-09		24.603	0.000
Government Engineering Support	WX	NUWC, Newport, RI	7.909			0.690	OCT-08	0.185	OCT-09		8.784	0.000
Government Engineering Support	WX	NAWC AD, Pax River	9.775			1.700	OCT-08	2.652	OCT-09		15.127	0.000
Government Engineering Support	WX	NSWC/CR, Crane, IN	15.875			0.750	OCT-08	0.243	OCT-09		16.868	0.000
Government Engineering Support	WX	NSWC/SSES, Philadelphia, PA	26.370			5.850	OCT-08	8.626	OCT-09		43.846	0.000
Government Engineering Support	Various	Government Activities	19.360			9.515	OCT-08	9.387	OCT-09		38.262	0.000
Contractor Engineering Support	Seaport	Alion, Arlington, VA	19.351			5.000	OCT-08	1.700	OCT-09		26.051	0.000
Contractor Engineering Support	Seaport	Various	17.723			2.500	OCT-08	2.207	OCT-09		22.430	0.000
Labor (Research Personnel)	CPFF	APL/JHU, Laurel, MD	4.030			2.500	OCT-08	1.486	OCT-09		8.016	0.000
Government Engineering Support	RX	NAVAIR	2.000			0.000		0.000			2.000	0.000
Subtotal Support			**185.606**			**35.005**		**33.486**			**259.097**	**0.000**
Remarks:												
Test & Evaluation	Seaport	Alion, Arlington, VA	4.504			1.200	OCT-08	2.660	OCT-09		11.364	0.000
Test & Evaluation	WX	NSWC/CD, Bethesda, MD	0.650			0.000		0.000			0.650	0.000
Test & Evaluation	WX	NSWC/PHD, Port Hueneme, CA	10.117			3.201	OCT-08	4.829	OCT-09		18.147	0.000

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**		PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**				PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)			FY 2009 Cost ($000)	FY 2009 Award Date	FY 2010 Cost ($000)	FY 2010 Award Date		Total Cost ($000)	Target Value of Contract
Test & Evaluation	WX	NSWC/SSES, Philadelphia, PA	11.000			1.900	OCT-08	5.2	OCT-09		21.100	0.000
Test & Evaluation	WX	NSWC/PC, Panama City, FL	1.230			1.900	OCT-08	1.846	OCT-09		4.976	0.000
Test & Evaluation	WX	COMOPTEVFOR	2.749			2.500	OCT-08	2	OCT-09		7.249	0.000
Test & Evaluation	WX	NSWC/COR, Corona, CA	1.800			0.800	OCT-08	0.8	OCT-09		3.400	0.000
Test & Evaluation	WX	Various	14.048			5.418	OCT-08	12.229	OCT-09		37.695	0.000
T&E Ordnance	WX	IWS 3	5.577			4.323	OCT-08	0			9.900	0.000
T&E	Comp	LM/GD	0.000			1.000	OCT-08	16.7	OCT-09		22.700	0.000
T&E	WX	SPAWAR, SC	3.075			1.400	OCT-08	0.972	OCT-09		5.447	0.000
Subtotal T&E			**54.750**			**23.642**		**47.236**			**142.628**	**0.000**
Remarks:												
Government Travel		NAVSEA	0.933			0.300	OCT-08	0.100	OCT-09		1.333	0.000
CODB		PEO Ships	2.430			1.650	OCT-08	0.000	OCT-09		4.080	0.000
Program Management Support		Alion, Arlington, VA	15.602			2.330	OCT-08	5.400	OCT-09		31.332	0.000
Program Management Support		Various	1.650			3.820	OCT-08	0.200	OCT-09		5.670	0.000
Program Management Support		NSWC/SSES, Philadelphia, PA	1.208			0.750	OCT-08	0.200	OCT-09		2.158	0.000
Program Management Support		JJMA, Arlington, VA	0.990			0.550	OCT-08	0.100	OCT-09		1.640	0.000
Program Management Support		DOD	3.208			0.000		0.000			3.208	0.000
Subtotal Management			**26.021**			**9.400**		**6.000**			**49.421**	**0.000**
Remarks:												
Total Cost			**502.355**			**101.885**		**121.913**			**766.153**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**

LCS RDT&E (3096)Schedule



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**			PROJECT NUMBER AND NAME **3096/Littoral Combat Ship**			
Schedule Profile	FY 2008	FY 2009	FY 2010				
Post Delivery Developmental Testing / Operational Testing - Flight 0 Ships		1Q-4Q	1Q-4Q				
Class Design Services		1Q-4Q	1Q-4Q				
Combat System & C4I Spiral Development		1Q-4Q	1Q-4Q				
Shock Planning/Test (LFT&E)	1Q-4Q	1Q-4Q	1Q-4Q				

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**				PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	98.072	169.765	163.145				
RDT&E Articles Qty	0	1	0				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Program provides focused war fighting capabilities in littoral mine warfare, small boat threat neutralization and littoral anti-submarine warfare to provide assured access to enable the US Joint Force operations in the littoral. Mission module development includes architectures, interfaces and development of mission module. Mission systems development also includes the procurement of the first mission packages to be used on the Flight 0 Littoral Combat Ships (LCS).

Mine Warfare Mission Modules will provide the Joint Force Commander with the capability to conduct Mine Counter Measure (MCM) operations ranging from first response mine detection and avoidance, to neutralization and sweeping in littoral conditions, enabling Joint Forcible Entry. This will open transit lanes and operating areas for naval forces. MCM operations will reduce the access timeline in contested littorals.

Anti-Submarine Warfare Modules will provide ASW capabilities while operating in a contested littoral environment. Leveraging multiple distributed sensors netted together, LCS will exploit real time undersea data, using maneuver and deception to enhance detection, classification, identification, targeting and destruction of enemy submarines.

Surface Warfare Mission Modules will provide the capability to detect, track and engage small boat threats, giving the joint force commander the ability to maximize striking power, shield high value units, or successfully move through a restricted area.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	4.714	2.530	2.709
RDT&E Articles Quantity	0	0	0

1.1 SYSTEM ENGINEERING

FY08: Prepare program specifications requirements and documentation to include: Information assurance, modeling and simulation, Configuration Management (CM), and safety engineering efforts. Systematically identify potential hazards in the development, test, integration and operation of the Mine Countermeasures (MCM), Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (SUW) Mission Packages (MP). Develop sea frame simulation software to support MCM/ASW/SUW MP interface testing to the Sea frame. Development of a Littoral Combat Ship (LCS) Mission Module Incremental Development Program Strategy.

FY09: Continuation of Information assurance, modeling and simulation, CM, Incremental Development, and safety engineering efforts.

FY10: Continuation of modeling and simulation, program safety, and CM.

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	7.954	7.830	8.652
RDT&E Articles Quantity	0	0	0

1.2 PROGRAM MANAGEMENT

FY08: Continue program-level program management efforts, including Contract Advisory and Assistance Services (CAAS): business and administrative planning, organizing, directing, coordinating, controlling, and approval actions designated to accomplish overall program objectives which are not associated with specific hardware elements and are not included in systems engineering. Develop document, maintain and execute logistic plans, processes and programs to assist in the management and support of Mission Modules and Mission Packages. Provide Risk Management; Determine production approval status of each Mission Package and its effect on contracting and delivery.

FY09-FY10: Continue program-level program management efforts, including CAAS: business and administrative planning, organizing, directing, coordinating, controlling, and approval actions designated to accomplish overall program objectives which are not associated with specific hardware elements and are not included in systems engineering. Maintain and execute logistic plans, processes and programs to assist in the management and support of Mission Modules and Mission Packages. Provide Risk Management.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	3.363	5.960	10.322
RDT&E Articles Quantity	0	0	0

1.3 SYSTEM TEST AND EVALUATION

FY08: Test Planning Support in the identification of all LCS MCM, SUW, and ASW operational effectiveness requirements from reference documents. Development of Operational Test Objectives database populated with Measures of Effectiveness (MOEs) and Measure Of Suitability (MOSs), Operational Scenarios, and applicable analytical process for each metric. Analysis of current Office of Naval Intelligence (ONI) threat assessment and existing representative minefields to include generation of operational scenarios of sufficient latitude to encompass the data necessary for reduction to resolve applicable Critical Operational Issues (COIs). COMOPTEVFOR support for Operational Test and Evaluation (OT&E) of the MCM and ASW mission packages with the seaframes, including long-lead testing management continuity. Mission package Certification efforts in order to support pre-Developmental Testing/Operational Testing (DT/OT) work. Continued development and use of the Mission Package Development Lab (MPDL) to support MP software testing, Information Assurance conformance, Mission Package Certification efforts.

FY09: Continuation of Mission Package certification efforts for MCM MP, conduct DT of the MCM MP on board LCS-1.

FY10: Continuation of Mission Package certification efforts for ASW, and SUW. Conduct DT of the MCM MP on board LCS-2; conduct ASW DT on board LCS-1; conduct SUW DT on board LCS-1/2.

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	0.967	1.497	1.054
RDT&E Articles Quantity	0	0	0

1.4 INTEGRATION, ASSEMBLE, TEST AND CHECKOUT

FY08: Provide systems engineering and program management support for the integration planning of Mission Module Packages for LCS ship classes. Provide technical analyses and support studies for systems integration of Mission Module/Packages on LCS ship classes.

FY09-FY10: Continue program-level Integration, Assembly, Test & Checkout efforts: technical and functional activities associated with the design, development, and production of mating surfaces, structures, equipment, parts, materials, and software required to assemble hardware/software elements into mission equipment.

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**	

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	1.996	1.656	13.111
RDT&E Articles Quantity	0	0	0

1.5 TRAINING

FY08: Development and incorporation of all MCM, ASW, and SUW Mission Package information required to be included in the Navy Training Systems Plan (NTSP). Develop training services, devices, accessories, aids and equipment. Assist in planning, implementing and managing a proactive training program that ensures a high level of training completions and successful LCS Mission Module crew certification for introduction to the Fleet for the MCM, ASW and SUW Mission Packages.

FY09 - Complete the incorporation of all MP information into the NTSP, Continue the implementation and management of a proactive training program, continue program-level training efforts: Design, develop, produce, and deliver training services, devices, accessories, aids, equipment.

FY10 - Start the development of the software for the technical trainer in support of the CDD requirements for Train-to-Certify and Train-to-Qualify. First years efforts will focus on MCM.

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	10.769	47.806	31.221
RDT&E Articles Quantity	0	0	0

1.12 COMMON EQUIPMENT

FY08: Mission Package Computing Environment (MPCE) - Development, integration, & testing to support the Hardware (H/W) for Mission Packages ASW, MCM, and SUW; Mission Package Integration and Certification, Unmanned Surface Vehicle (USV) Development; integration of common Command and Control, and technical support for system test and evaluation. Develop, Configure, Install, and Maintain LCS MPCE. The MPCE consists of General Purpose Computing Equipment, General Purpose Consoles, and roll on/roll off computing equipment. Procure lab integration and test equipment to support integration/regression test events. Manage MPCE hardware procurement, inventory management, and development suite hardware inventory database. Provide a coordinated point for all hardware inventories and allow rapid and accurate accountability, deployment, and/or support. Multi-Vehicle Communication System (MVCS) provide the communications systems capabilities that support LCS mission package unmanned vehicle requirements. This includes all non-recurring engineering (NRE) for mission package communications to develop, test, and integrate the hardware and software that directly supports MP requirements.

FY09: Mission Package Computing Environment (MPCE)- Mission Package Operating Environment (MPOE) Platform Development - manage software configuration(s), identify and acquire required components, test for compatibility, and deliver post-installation security lock-down scripts. Develop MPCE Integrated Logistics support (ILS) documentation, conduct vendor Training. Document the LCS mission package concept of operations, functional & performance requirements, interfaces, and computing environment. Conduct MPCE Integration and Test events on the Seaframes and at LCS 1 and LCS 2 land-based facilities.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**

Multi-Vehicle Communication System (MVCS)- The Mission Package Off Board Communications will provide the communications systems capabilities that support LCS mission package unmanned vehicle requirements. Conduct INCO on LCS sea frame.

MH-60 B/R/S - Initiate the design, development, and prototyping of the Ku-band Common Data Link (CDL) Kit for installation in an SH-60B helicopter to allow the SH-60B to communicate with LCS via its shipboard CDL system. Design, and development a C4ISR Multiplexer / De-Multiplexer Interface Unit. Design and development of Fast Track Imaging (FTI) sets for installation in an MH-60S helicopter.

FY10: MPCE - Support the conduct of Mission Package developmental testing, correct deficiencies observed during testing.

MVCS - Support MVCS Full Capability ship installation, update technical data package after ship installation. Integrate Beyond Line of Sight (BLOS) capability into MVCS. Conduct DT of MVCS increment 1 capability onboard LCS sea frame.

MH 60 B/R/S - Complete the development of the Ku-Band CDL Helo Support Functional segment, install onboard LCS sea frame and conduct integration testing.

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	10.719	23.118	12.416
RDT&E Articles Quantity	0	0	0

1.13 MINE WARFARE (MCM) MISSION PACKAGE

FY08: Continue MP 1 Integration and testing. Conduct shore based End to End testing. Develop USV and Sweep system. Continue Software development and testing. Continue development efforts for the MCM Mission Package: designs, development, production, integration, assembly, test and operation of MCM MP 1.

FY09: Continue integration of Spiral A Mission Modules. Design, develop, integrate and test mission modules for remainder of systems needed to complete Spiral A baseline. Develop, integrate and test USV and Sweep systems. Develop test procedures and documentation. Integrate the MCM MP with LCS sea frame.

FY10: Conduct at sea integration (end-to-end) testing. Conduct developmental testing (DT) with sea frame. Correct of deficiencies observed during testing. Conduct Certification of MCM MP to include weapons system certification, Human Systems Integration (HSI), Information Assurance, and Safety. Integrate the SMCM UUV w/LFBB.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	20.700	5.993	10.795
RDT&E Articles Quantity	0	0	0

1.14 ASW MISSION PACKAGE

FY08: Continue development efforts of ASW Mission Package #1: design, development, production, integration, assembly, test and operation of the entire ASW Mission Package.

FY09: Complete integration of the ASW MP, conduct at-sea testing of ASW MP#1.

FY10: Complete end-to-end testing of ASW MP#1, integrate the ASW MP with the LCS sea frame and conduct DT events.

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	36.300	67.450	66.784
RDT&E Articles Quantity	0	1	0

1.15 SUW MISSION PACKAGE

FY08: Design, develop, integrate and test and deliver the first interchangeable gun weapon system (30mm Gun module) and medium range surface-to-surface missile weapon system (NLOS module). Includes the NRE associated with the design, development and test of the Gun Mission Module (GMM) subsystems to provide the GMM requirements specified in the LCS Capability Development Document (CDD). Provide required funds to PEO Missiles & Space for NLOS development in support of the Navy requirements.

FY09: Provide required funding to PEO Missiles & Space for NLOS development. Develop the power converter solution for the NLOS Mission Module. Develop and maintain the LCS SUW T&E Road-map and Master Test Plan. Conduct testing of the GMM, the Container Launch Unit (CLU), and the Mission Module. Develop Training and Preliminary Maintenance Plans for the GMM.

FY10: Purchase NLOS PAM test Missiles. Conduct GMM integration testing with sea frame and combat systems, conduct structural test firing and End-to-End testing of the GMM.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	0.160	1.625	1.929
RDT&E Articles Quantity	0	0	0

1.16 Portable Mission Package Computing Environment

FY08: Design, Develop, integrate and check out a Portable Mission Package Computing Environment (P-MPCE) .

FY09-FY10: Provide technical expertise in the development and configuration of the P-MPCE. Conduct systems engineering, design, development, and integration tasks to support implementation of a P-MPCE core capability. Track/Coordinate the development and installation of the P-MPCE components within the transportable support container. Perform software and hardware integration to support P-MPCE baseline, revise Information Assurance (IA) plan and network topology, conduct system groom, perform test and checkout of P-MPCE and ancillary systems.

	FY 2008	FY 2009	FY 2010
Accomplishments/Effort/Subtotal Cost	0.430	4.300	4.152
RDT&E Articles Quantity	0	0	0

1.19 PRE-PRODUCTION ENGINEERING

FY08: Develop a plan for preparing a production quality technical data package (TDP) for LCS MPs. Manage the Class II Change Board for all Mission Packages.

FY09: Convert existing MCM MP TDP data to needed format and develop any needed drawings to complete the MP TDP.

FY10: Convert existing ASW and SUW MP TDP data to needed format and develop any needed drawings to complete the MP TDP

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**	

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2008	FY 2009	FY 2010						Total Cost
BLI 1600 (OPN)	0.000	73.684	137.259						210.943
BLI 2127 (SCN)	0.106	1,016.952	1,380.000						2502.952
BLI 4221 (WPN)	0.000	2.778	0.000						2.778
BLI 0443 (APN)	37.432	50.189	77.616						165.237
BLI 1B4B/14B50 (O&MN)	7.885	11.854	9.296						29.035
BLI 1B5B/15BR0 (O&MN)	22.562	24.804	20.737						68.103
BLI 1C1C/11C70 (O&MN)	0.000	1.551	1.746						3.297

D. ACQUISITION STRATEGY:

(U) The LCS acquisition strategy encompasses multiple phases: Phases I and II are Concept Refinement and Technology Development, consisting of Preliminary Design, Final Design and Detail Design and Construction for Flight 0 ships. A parallel three phase approach is planned for Flight 0+ ships. - Preliminary System Design, - Final System Design and - Detail Design and Construction.

E. MAJOR PERFORMERS:

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**		PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**				PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)			FY 2009 Cost ($000)	FY 2009 Award Date	FY 2010 Cost ($000)	FY 2010 Award Date		Total Cost ($000)	Target Value of Contract
1.1 System Engineering	WX	Various	6.575			2.530	OCT-08	2.709	OCT-09		11.814	0.000
1.3 System Test and Evaluation	WX	Various	18.559			5.960	OCT-08	10.322	OCT-09		34.841	0.000
1.4 Integ, Assem, Test and Check	WX	Various	0.967			1.497	OCT-08	1.054	OCT-09		3.518	0.000
1.5 Training	WX	Various	4.163			1.656	OCT-08	13.111	OCT-09		18.930	0.000
1.12 Common Equipment	WX	Various	10.919			36.787	OCT-08	22.304	OCT-09		70.010	0.000
1.13 Mine Warfare MP	WX	Various	74.012			23.118	OCT-08	10.443	OCT-09		107.573	0.000
1.14 ASW MP	WX	Various	140.271			5.993	OCT-08	6.211	OCT-09		152.475	0.000
1.15 SUW MP	WX	Various	36.300			56.300	OCT-08	43.552	OCT-09		136.152	0.000
1.16 Portable MP Computing Environment	WX	Various	0.160			0.000		0.000			0.160	0.000
1.19 Pre Production Engineering	WX	Various	0.430			4.300	OCT-08	4.152	OCT-09		8.882	0.000
Subtotal Product Development			**292.356**			**138.141**		**113.858**			**544.355**	**0.000**
Remarks:												
1.1 System Engineering	WX	Various	2.405			0.000		0.000			2.405	0.000
1.12 Common Equipment	WX	Various	2.625			11.019	DEC-08	8.917	OCT-09		22.561	0.000
1.13 Mine Warfare (MCM) MP	WX	Various	4.600			0.000		1.973	OCT-09		6.573	0.000
1.14 ASW MP	WX	Various	19.325			0.000		4.584	OCT-09		23.909	0.000
1.15 SUW MP	WX	Various	15.879			11.150	NOV-08	23.232	OCT-09		50.261	0.000
1.16 Portable MP Computing Environment	WX	Various	0.000			1.625	OCT-08	1.929	OCT-09		3.554	0.000
Subtotal Equipment and Hardware			**44.834**			**23.794**		**40.635**			**109.263**	**0.000**
Remarks:												
Program Management	WX	Various	13.049			7.830	OCT-08	8.652	OCT-09		29.531	0.000
Subtotal Management			**13.049**			**7.830**		**8.652**			**29.531**	**0.000**
Remarks:												
Total Cost			**350.239**			**169.765**		**163.145**			**683.149**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**

Mission Package Delivery Schedule

	FY08	FY09	FY10	FY11	FY12			
MCM Mission Package		△ MCM QTY1 OPN			△ MCM QTY 1 OPN			
ASW Mission Package	△ ASW QTY 1 RDT&EN							
SUW Mission Package	△ SUW QTY 1 RDT&EN	△ SUW QTY 1 RDT&EN		△ SUW QTY 1 RDT&EN	△ SUW QTY 1 OPN			

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**			PROJECT NUMBER AND NAME **3129/LCS Mission Package Development**			
Schedule Profile	FY 2008	FY 2009	FY 2010	FY2011	F2012		
MCM MP Deliveries		SEP 09			SEP 11		
ASW MP Deliveries	SEP 08						
SUW MP Deliveries	AUG 08	AUG 09		SEP 11	SEP 11		

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**				PROJECT NUMBER AND NAME **4018/Littoral Combat Ship Construction**		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	121.887	85.917	75.460				
RDT&E Articles Qty	0	0	0				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Littoral Combat Ship (LCS) will be a fast, agile, and networked surface combatant with capabilities optimized to defeat asymmetric threats, and assure naval and joint force access into contested littoral regions. The threats challenging our naval forces in the littorals include mines, attacks by small surface craft, and quiet diesel submarines armed with a variety of anti-ship weapons. Such threats have great potential to be effectively employed by many less capable countries and non-state actors to prevent access, and use, of littoral areas by U.S. forces.

The LCS will use open-systems-architecture design, modular weapons, and sensor systems, and a variety of manned and unmanned vehicles to expand the battlespace and project offensive power into the littoral. LCS will operate with focused-mission packages that deploy manned and unmanned vehicles to execute a variety of missions, including littoral anti-submarine warfare (ASW), anti-surface warfare (SUW) and mine countermeasures (MCM). LCS will also possess inherent capabilities, regardless of mission package installed, including intelligence, surveillance, reconnaissance (ISR), homeland defense, Maritime Interdiction/Interception Operations (MIO), anti-terrorism/force protection (AT/FP), air self-defense, joint littoral mobility, and Special Operating Forces (SOF) and logistic support for movement of personnel and supplies.

This relatively small, high-speed surface combatant will compliment the U.S. Navy's AEGIS Fleet, DDG 1000, and CG(X) by operating in environments where it is less desirable to employ larger, multi-mission ships. It will have the capability to deploy independently to overseas littoral regions, remain on station for extended periods of time either with a battle group or through a forward-basing arrangement and will be capable of underway replenishment. It will operate with Carrier Strike Groups, Surface Action Groups, in groups of other similar ships, or independently for diplomatic and presence missions. Additionally, it will have the capability to operate cooperatively with the U.S. Coast Guard and Allies.

The RDT&E portion of the LCS Program is comprised of design and development efforts required to deliver the Flight 0 Class Ships, including modular MCM, ASW, and SUW mission packages, construction of the first two Flight 0 Class Ships that will deliver in FY08 and FY09 and the incorporation of lessons learned from the design, construction, and testing of the first two ships. Also includes the introduction of improved waterjets on both designs and a waterjet tunnel extension on the LM LCS design which will comprise the Flight 0+ baseline.

The LCS Program achieved Milestone A and Program Initiation in May 2004, and conducted a Milestone A update.
The LCS construction phase includes the construction of two LCS Fight 0 Class Ships, one of each of two designs, by DAE Review in FY09 for two different industry teams, and includes Government Furnished Equipment (GFE) for ships systems, Final System Design (FSD), Detail Design, and Mission Systems and Ship Integration Team (MISST), and Outfitting and Post Delivery.

	LCS 1	LCS 2
BCC	521.0	557.0
Change Orders	0.5	3.5
Other	3.5	7.5
GFE	12.0	7.0
Total End Cost	537.0	575.0
FSD/MSSIT	25.0	54.0
OF/PD	75.0	75.0
Total	637.0	704.0

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **4018/Littoral Combat Ship Construction**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
Construction	94.386	63.453	0.000
RDT&E Articles Quantity	0	0	0

Provides for the construction, production, test and trial of LCS 1 and LCS 2 ships, including execution of Change Orders and procurement of Government Furnished Equipment (GFE).

FY2008: Continued detail design and construction of LCS 1 (Lockheed Martin Design) and LCS 2 (General Dynamics - Bath Iron Works Design). Completed procurement of GFE for both LCS 1 and LCS 2. Support and execute the ship pre-delivery test and trials and related certification efforts.

FY2009: Funds continued construction efforts for LCS 1 and LCS 2

	FY 2008	FY 2009	FY 2010
Outfitting and Post Delivery	27.501	22.464	75.460
RDT&E Articles Quantity	0	0	0

Provides for the integration and testing of the sea frame and separately acquired mission packages, implementation of instrumentation packages and validation of structural, seakeeping, hydrodynamic performance, emergent support during the execution of PDT&T, post-shakedown availability (PSA) to incorporate Engineering Change Proposals that allow for correction of trial card deficiencies, and mission critical upgrades, as required.

FY 2008: Complete procurement of LCS 1 and LCS 2 spare and repair parts for shipboard equipment, shipboard equipage and tools, consumables, HAZMAT and other materials, and medical space items, including medical supplies. Complete procurement of shipboard maintenance equipment. Initiate instrumentation installation and integration. Complete detailed test plans and conduct Test Readiness Reviews (TRR). Perform engineering, planning and procurement of long lead material for the Industrial Post Delivery Availabilities (IPDA), scheduled immediately after ship delivery.

FY 2009: Initiate operation of installed instrumentation equipment, collection of data and the analysis of critical ship performance parameters. Conduct testing of mission packages, seaframe, and the integrated product. Conduct Combat Systems Ship Qualification Trials (CSSQT) testing of Seaframes and mission packages. Perform emergent repairs during PDT&T as required. Perform engineering, planning, work package development and procurement of long lead material for the Post-Shakedown Availabilities (PSA) for both LCS 1 and LCS 2. Conduct IPDA's for LCS 1 and 2 to correct trial card deficiencies and incorporate critical safety and mission critical ECP's that must be completed prior to delivery to the Fleet.

FY 2010: Perform emergent repairs to support Post Delivery Test and Trials. Conduct final contract trials and provide technical support for the INSURV Board. Correct Trial Card discrepancies. Perform advance planning, engineering, work package development and the procurement of material to support two fourteen week industrial Post Shakedown Availability (PSA) to include both LCS 1 and LCS 2. Execute the PSA for both LCS 1 and LCS 2. Complete instrumentation, data collection and analysis of critical ship performance.

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **4018/Littoral Combat Ship Construction**	

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2008	FY 2009	FY 2010						Total Cost
BLI 1600 (OPN)	0.000	73.684	137.259						210.943
BLI 2127 (SCN)	0.106	1,016.952	1,380.000						2502.952
BLI 4221 (WPN)	0.000	2.778	0.000						2.778
BLI 0443 (APN)	37.432	50.189	77.616						165.237
BLI 1B4B/14B50 (O&MN)	7.885	11.854	9.296						29.035
BLI 1B5B/15BR0 (O&MN)	22.562	24.804	20.737						68.103
BLI 1C1C/11C70 (O&MN)	0.000	1.551	1.746						3.297

D. ACQUISITION STRATEGY:

The LCS Program takes an evolutionary approach to acquisition that emphasizes completion of two initial Seaframe designs, the LCS Flight 0 Class ships, by two industry teams. The incorporation of lessons learned from the design, construction, and testing of the first two ships, as well as introduction of improved waterjets on both designs and a waterjet tunnel extension on the LM LCS design will comprise the Flight 0+ baseline to be awarded in FY09 and FY10. The LCS Program Acquisition Strategy uses a limited competition approach for existing industry teams to compete for the construction of Flight 0+ Class Ships in FY09 through FY10.
The LCS Program will concurrently initiate Class Design Services contracts to both industry design teams for development of a Navy Design Package.

The LCS Program achieved Milestone A and Program Initiation in May 2004, and conducted a Defense Acquisition Executive (DAE) review in FY09. Milestone B has been planned beyond FY10.

E. MAJOR PERFORMERS:

Major Contractors:
General Dynamics - Bath Iron Works, Bath, ME
Austal USA, Mobile, AL
Lockheed Maritime Systems and Sensors, Moorestown, NJ
Marinette Marine Corporation, Marinette, WI
Bollinger Shipyards, LA

Government Field Activities:

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **4018/Littoral Combat Ship Construction**

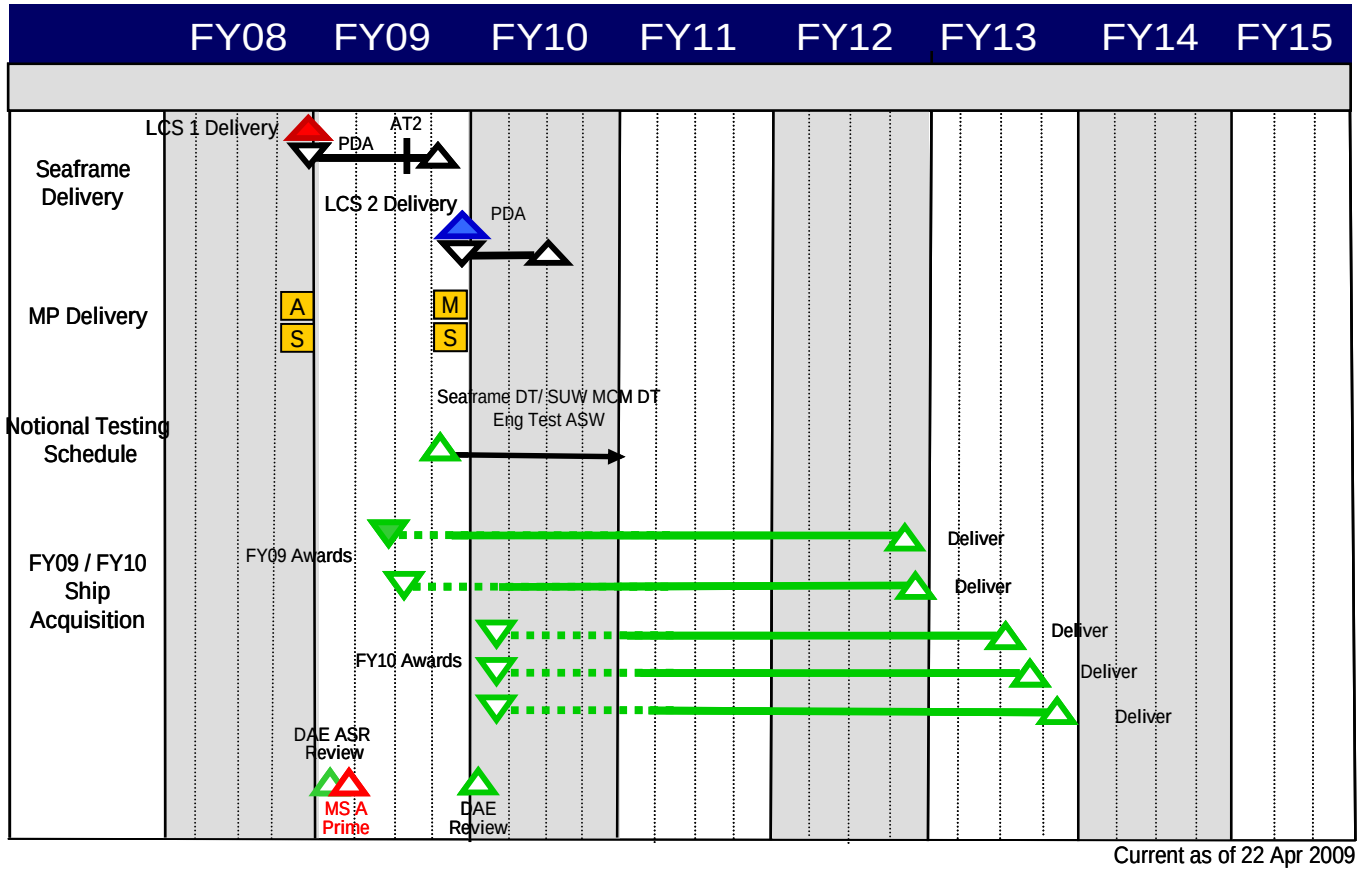
NSWC Dahlgren, Dahlgren, VA
NSWC Carderock, Philadelphia, PA
Space and Naval Warfare Command (SPAWAR), Charleston, SC
NSWC/Port Hueneme, Port Hueneme, CA

Universities:
Johns Hopkins University Applied Physics Lab, Laurel, MD

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**		PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**					PROJECT NUMBER AND NAME **4018/Littoral Combat Ship Construction**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)			FY 2009 Cost ($000)	FY 2009 Award Date	FY 2010 Cost ($000)	FY 2010 Award Date		Total Cost ($000)	Target Value of Contract
LCS Ship 1 Construction	Comp	Lockheed Martin	502.000			19.000		0.000			521.000	0.000
LCS Ship 1 Change Orders	Comp	Lockheed Martin	0.500			0.000		0.000			0.500	0.000
LCS Ship 1 GFE	Comp	Lockheed Martin	12.000			0.000		0.000			12.000	0.000
LCS Ship 2 Construction	Comp	General Dynamics	512.847			44.153		0.000			557.000	0.000
LCS Ship 2 Change Orders	Comp	General Dynamics	3.500			0.000		0.000			3.500	0.000
LCS Ship 2 GFE	Comp	General Dynamics	7.000			0.000		0.000			7.000	0.000
LCS Ship 1 FSD/MSSIT	Comp	Lockheed Martin	25.000			0.000		0.000			25.000	0.000
LCS Ship 2 FSD/MSSIT	Comp	General Dynamics	54.000			0.000		0.000			54.000	0.000
Subtotal Product Development			**1,116.847**			**63.153**		0.000			**1,180.000**	**0.000**
Other Program Costs	Various	Various	11.000			0.000		0.000			11.000	0.000
Travel	PD	SUPSHIPS	0.160			0.300		0.000			0.460	0.000
Subtotal Support Costs			**11.160**			**0.300**		0.000			**11.460**	**0.000**
Remarks:												
Subtotal Management Services			**0.000**			**0.000**		**0.000**			**0.000**	**0.000**
Remarks:												
Initial Outfitting / ISP	Various	Various	21.601			0.000	VAR	0.000			21.601	0.000
Testing and Logistics	WX	NSWC (Various)	18.948			6.000	VAR	4.000			28.948	0.000
Post Delivery ECP's	Comp	LM/GD	3.200			16.000	VAR	25.000	VAR		44.200	0.000
PSA/PSA Planning/INSURV/OPTAR	PD	Supship (Various)	4.591			0.464	VAR	46.460	VAR		51.515	0.000
Subtotal Outfitting / Post Delivery			**48.340**			**22.464**		**75.460**			**146.264**	**0.000**
Remarks:												
Total Cost			**1,176.347**			**85.917**		**75.460**			**1,337.724**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**	PROJECT NUMBER AND NAME **4018/Littoral Combat Ship Construction**

Acquisition Schedule



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603581N/LITTORAL COMBAT SHIP (LCS)**			PROJECT NUMBER AND NAME **4018/Littoral Combat Ship Construction**			
Schedule Profile	FY 2008	FY 2009	FY 2010				
Detail Design and Construction - Flight 0	1Q-4Q	1Q-4Q					
LCS 1 Delivery (Flight 0)	4Q						
LCS 2 Delivery (Flight 0)		4Q					

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDTEN/BA 4	**0603581N/LITTORAL COMBAT SHIP (LCS)**	**9999/CONGRESSIONAL ADDS**	

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010	
9821A/ Remote Operation of Active Sonar Technology	2.319	0.000	0.000	0.000
RDT&E Articles Quantity	0	0	0	0

Funding is for efforts to optimize active Sonar operating depth and source transmission to achieve the best acoustic coverage for the mission area and target scenario, based on the available source transmission and receiver processing characteristics in support of the ASW Mission Package.

	FY 2008	FY 2009	FY 2010	
9B84A/ASW CONTACT MANAGEMENT MISSION PLANNING IMPROVEMENT	2.699	0.000	0.000	
RDT&E Articles Quantity	0	0	0	

Funding to provide a robust ASW fused-data mission planning and in-situation execution decision aid capability for a multi-platform, network-based system-of-systems. This would allow for a capability to assimilate, evaluate, fuse, and provide situational awareness with rapid re-planning capability to Fleet Commanders and tactical operators

	FY 2008	FY 2009	FY 2010	
9B86A/LCS MISSION PACKAGE ENTERPRISE	3.862	0.000	0.000	
RDT&E Articles Quantity	0	0	0	

This funding initiative will extend the process across the Enterprise and conduct coordinated "build-test-build" spiral testing for LCS Mission Packages and embarked off board platforms. The focus will be on proactively executing technology innovation transitions, assessing operational effectiveness improvements and managing the risks involved through regularly scheduled at sea evaluations.

	FY 2008	FY 2009	FY 2010	
9B87A/NEW PAYLOADS AND SENSORS UNMANNED SURFACE VEHICLE SYSTEM	1.552	0.000	0.000	
RDT&E Articles Quantity	0	0	0	

Funding to design, produce and test modular USV subsystems and autonomy on existing USVs. Modularity will reduce cost and schedule to integrated new payloads while improved autonomy will enable future concept of operation for USVs.

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDTEN/BA 4	**0603581N/LITTORAL COMBAT SHIP (LCS)**	**9999/CONGRESSIONAL ADDS**	

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010	
9D41A/Autonomous Acoustic Array Advanced Tubular Solid Oxide Fuel Cell	0.000	1.995	0.000	
RDT&E Articles Quantity	0	0	0	

Funding to design, produce and test modular USV subsystems and autonomy on existing USVs. Modularity will reduce cost and schedule to integrated new payloads while improved autonomy will enable future concept of operation for USVs.

	FY 2008	FY 2009	FY 2010	
9D42A/LCS Common MIssion Package Training Environment	0.000	4.488	0.000	
RDT&E Articles Quantity	0	0	0	

Funding is provided to accelerate the development of a common Mission Package Trainer to meet near term MCM Mission Package training requirements.

	FY 2008	FY 2009	FY 2010	
9D43A/AIternative Use of Mine Warfare Modules	0.000	3.790	0.000	
RDT&E Articles Quantity	0	0	0	

Funding to provide a robust ASW fused-data mission planning and in-situation execution decision aid capability for a multi-platform, network-based system-of-systems. This would allow for a capability to assimilate, evaluate, fuse, and provide situational awareness with rapid re-planning capability to Fleet Commanders and tactical operators