

CLASSIFICATION:**UNCLASSIFIED****EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION**

DATE

February 2008

APPROPRIATION/BUDGET ACTIVITY

RD TEN/BA 4

R-1 ITEM NOMENCLATURE

0603581N/LITTORAL COMBAT SHIP (LCS)

COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	663.935	304.117	371.008	281.407	138.912	168.373	116.364
3096 / Littoral Combat Ship	55.282	69.717	154.467	115.568	65.992	50.957	23.349
3129 / LCS Mission Package Development	168.387	106.871	170.499	113.839	72.920	117.416	93.015
4018 / Littoral Combat Ship Construction	430.672	36.312	46.042	52.000	0.000	0.000	0.000
9999 / CONGRESSIONAL ADDS	9.594	91.217	0.000	0.000	0.000	0.000	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 (MIW). 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

February 2008

APPROPRIATION/BUDGET ACTIVITY

RD TEN/BA 4

R-1 ITEM NOMENCLATURE

0603581N/LITTORAL COMBAT SHIP (LCS)**B. PROGRAM CHANGE SUMMARY:**

Funding:	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY08 Pres Controls)	329.383	217.502	171.146
Current President's Budget (FY09 Pres Controls)	663.935	304.117	371.008
Total Adjustments	334.552	86.615	199.862
(U) Summary of Adjustments			
Congressional Program Adjustments	-1.200	91.800	
Congressional Undistributed Adjustments		-1.989	
Program Adjustments		-3.196	200.639
Undistributed General Adjustments	-0.386		-0.777
SBIR	-8.334		
Reprogrammings	344.472		
Total	334.552	86.615	199.862

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4		PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)			PROJECT NUMBER AND NAME 3096/Littoral Combat Ship		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	55.282	69.717	154.467	115.568	65.992	50.957	23.349
RDT&E Articles Qty	0	0	0	0	0	0	0
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>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.</p> <p>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 (MIW). 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.</p> <p>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.</p> <p>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 MIW, ASW, and SUW mission packages, construction of the first two Flight 0 Class Ships that will deliver in 2008, and the incorporation of lessons learned from the design, construction, and testing of the first two ships. Also includes introduction of improved waterjets on both designs and a waterjet tunnel extension on the LM LCS design which will comprise the Flight 0+ baseline.</p> <p>The LCS Program achieved Milestone A and Program Initiation in May 2004, and is scheduled for a Milestone A update in FY08.</p> <p>The LCS design and development phase includes 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, and planning and conduct of system testing, including procurement of ordnance, Early Operational</p>							

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APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4	PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)	PROJECT NUMBER AND NAME 3096/Littoral Combat Ship
<p>Assessments (EOA), and Developmental Test and Operational Assessment (DT/OA). Developmental Test and Evaluation (DT&E) 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). 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.</p>		

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B. ACCOMPLISHMENTS/PLANNED PROGRAM:			
	FY 2007	FY 2008	FY 2009
LCS Class Design Services	4.800	0.000	32.000
RDT&E Articles Quantity	0	0	0
<p>Provides for a Class Design Services contracts 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.</p> <p>FY 2007/2008: 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 but are not limited to Engine Room Airborne Noise Abatement, Multiple Fire Alarm System stations, Anti-Terrorism Force Protection improvements, Producability and Modeling and Simulation Improvements etc. These changes will then be incorporated in the drawing packages used by the shipbuilders as the baseline for production.</p> <p>FY 2009: Translate the Flight 0+ baseline design drawings and associated documentation along with information obtained and systems/component changes determined necessary as a result of the Post Delivery Test and Trial period into detailed production drawings and documents. These drawings will also incorporate production, assembly and fabrication lessons learned from the previous seaframes as well as operator feedback from the Seaframe and Mission Package Crews obtained during the Testing and Trials Period. The result of this effort are detailed LCS Flight 0+ design and fabrication drawing packages which may be incorporated as Government Furnished Information into a Request For Proposal solicitation for the future Seaframes.</p>			
	FY 2007	FY 2008	FY 2009
LCS Program	12.800	13.400	17.400
RDT&E Articles Quantity	0	0	0
<p>Provides for overall LCS Program operations including technical, production, and logistics oversight, and acquisition, contract, Earned Value (EV), risk, S&T and financial management.</p> <p>FY 2007: Completed LCS Program restructure in accordance with CNO and SECNAV direction. Continued Milestone B preparation and initiated acquisition strategy development. Supported Joint Requirements Oversight Council (JROC) reviews and conducted Integrated Product Teams (IPT) as part of Milestone B decision process. Continued contract administration of LCS 1 and LCS 2 construction contracts. Initiated development of required documentation for proposal solicitation and evaluation for FY08 Flight 0+ Class Ships. Continued oversight and analyses of contractor Earned Value (EV). Supported Naval Audit Service reviews of LCS 1 and LCS 2 construction contractors. Initiated implementation of corrective actions.</p>			

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<p>FY 2008: Continue 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). Revise acquisition strategy. Continue contract administration of LCS 1 and LCS 2 construction contracts. Continue 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. Complete development of required documentation for proposal solicitation and evaluation for FY08 Flight 0+ Class ships. Conduct source selection and award one FY08 Flight 0+ Seaframe.</p> <p>FY 2009: Continue contract administration of LCS 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). Award two FY09 Seaframes. Conduct planning activities and source selection for FY10 contract award.</p>			
		FY 2007	FY 2008
LCS System-of-Systems Development, Engineering & Experimentation		17.400	25.678
RDT&E Articles Quantity		0	0
<p>Provides for LCS Program Navy systems engineering in support of Flight 0 design, development, certification, production, including ship system design and integration, combat and C4I design, integration, and test, aviation (manned and unmanned) integration, modular MIW, 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.</p> <p>FY 2007: Continued review of industry engineering, integration, production, and logistics activities that comprise the design and build of the LCS flight 0 Ships. Oversaw the development of Rev C of the Build Specifications for the LM and GD LCS. Developed and boarded 109 changes (ECPs) to this baseline, including completed negotiation of LM Mission System and Ship Integration Team (MSSIT) ECP implementing Initial Capabilities Document (ICD) 1.2 for LCS1 and follow ships and GD waterjet improvement ECP for LCS 5 and follow (LCS-5AF) and processed dozens of industry-developed Requests for Deviations (RFDs) / Justification for Technical Deviations (JTDs). Conducted Design Review and Production Readiness Review for LCS-3 and LCS-4. Adjudicated/developed technical solutions for numerous issues including GD cable and insulation, LM machinery layout and shaft alignment. Conducted crew workload analyses to verify ship manning levels. Conducted Total Ship Crew Modeling. Developed Manpower Estimate Reports, Navy Training Systems Plans, and Independent Logistics Assessments. Oversaw precommissioning (PRECOM) crew training. Developed LCS Class maintenance concept and plan. Initiated development of ship familiarization handbooks. Developed plans for Interface Control Document (ICD) definition decoupling LCS Seaframe from Combat and C4I Systems. Completed LCS C4I Information Support Plan (ISP). Funded Joint Unmanned Systems Common Control (JUSC2) Advanced Concept Technology Demonstration (ACTD).</p> <p>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. Complete development of Tactical Common Data Link (TCDL) solution for LCS integration with VTUAV. Complete development of LCS Capabilities and Limitations Document. Fund completion</p>			

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<p>of JUSC2 ACTD. Conduct GD aluminum structure "grillage" and associated testing. Conduct LM Seaframe structure model testing, and LM Offboard Vehicle Launch, Recovery and Handling risk reduction testing to raise Technology Readiness Levels. 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. Update Flight 0 baseline to support FY08 and FY09 awards (Flight 0+). Flight 0+ includes ECPs that reflect lessons learned, Naval Vessel Rules (NVR), and life-cycle enhancements for waterjets on both designs.</p> <p>FY 2009: 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 Flight 0+ technical baselines (Build Specifications) and ECPs. Manage final integration of ASW, SUW, and MIW Mission Packages for LCS 1 and LCS 2 and IV&V. Support completion of post-delivery certifications for LCS 1 and 2. Develop facilities support plans for CONUS locations. Support LCS 1 and 2 post-deployment test and trials. Conduct system engineering special studies and analyses in response to emergent design/production issues highlighted in testing. Implement TCDL integration solution for LCS 1 and 2. Initiate efforts on SH-60B Datalink</p>			
		FY 2007	FY 2008
LCS Total System Training Architecture		0.000	7.462
RDT&E Articles Quantity		0	0
<p>Provides for an LCS with a shipboard and shorebased 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.</p> <p>FY 2008: Complete LCS 2 (General Dynamics Design) Trainer.</p> <p>FY 2009: Complete upgrade to LCS 1 (Lockheed Martin design) trainer.</p>			
		FY 2007	FY 2008
LCS Test & Evaluation		20.282	23.177
RDT&E Articles Quantity		0	0
<p>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 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). 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.</p> <p>FY 2007: Completed development of an updated LCS T&E strategy in response to LCS program restructure. Initiated draft of updated Test and Evaluation Master Plan (TEMP) in</p>			

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<p>accordance with updated T&E strategy. Developed detailed Post Delivery Test and Trials (PDTT) plans for LCS 1 and LCS 2 including Mission Packages. Initiated detailed LFT&E shock and survivability modeling efforts. Continued review and assessment of industry test activities.</p> <p>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), and Surrogate Testing and Component & System Shock Tests. Continue review and assessment of industry test activities. Initiate procurement of T&E Ordnance to support LCS 1 and LCS 2 tests and trials.</p> <p>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. 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/CSOSS) validation Class Tactics Publication validation Combat Systems operations test - support to Combat System certification Underway Replenishment Qualification Trials Structural Test Firings (57mm, Super Rapid blooming Off-board Chaff (SRBOC))</p> <p>C. OTHER PROGRAM FUNDING SUMMARY:</p> <table border="1"> <thead> <tr> <th>Line Item No. and Name</th> <th>FY 2007</th> <th>FY 2008</th> <th>FY 2009</th> <th>FY 2010</th> <th>FY 2011</th> <th>FY 2012</th> <th>FY 2013</th> <th>To Complete</th> <th>Total Cost</th> </tr> </thead> <tbody> <tr> <td>BLI 1600 (OPN)</td> <td>78.741</td> <td>0.000</td> <td>131.241</td> <td>234.673</td> <td>242.184</td> <td>252.298</td> <td>227.441</td> <td>CONT</td> <td>CONT</td> </tr> <tr> <td>BLI 2127 (SCN)</td> <td>93.000</td> <td>337.106</td> <td>920.000</td> <td>1,379.503</td> <td>1,379.555</td> <td>1,839.850</td> <td>2,760.162</td> <td>CONT</td> <td>CONT</td> </tr> <tr> <td>BLI 4221 (WPN)</td> <td></td> <td></td> <td>2.786</td> <td>24.522</td> <td>47.353</td> <td>45.261</td> <td>10.701</td> <td>CONT</td> <td>CONT</td> </tr> <tr> <td>BLI 0443 (APN)</td> <td>37.419</td> <td>37.432</td> <td>55.337</td> <td>73.347</td> <td>75.560</td> <td>96.345</td> <td>102.799</td> <td>CONT</td> <td>CONT</td> </tr> <tr> <td>BLI 1B5B/15BR0 (O&MN)</td> <td>3.349</td> <td>28.499</td> <td>34.791</td> <td>47.246</td> <td>30.028</td> <td>30.389</td> <td>30.283</td> <td>CONT</td> <td>CONT</td> </tr> <tr> <td>BLI 1B4B/14B50 (O&MN)</td> <td></td> <td>8.400</td> <td>11.959</td> <td>0.472</td> <td>0.484</td> <td>0.519</td> <td>0.544</td> <td>CONT</td> <td>CONT</td> </tr> </tbody> </table>										Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost	BLI 1600 (OPN)	78.741	0.000	131.241	234.673	242.184	252.298	227.441	CONT	CONT	BLI 2127 (SCN)	93.000	337.106	920.000	1,379.503	1,379.555	1,839.850	2,760.162	CONT	CONT	BLI 4221 (WPN)			2.786	24.522	47.353	45.261	10.701	CONT	CONT	BLI 0443 (APN)	37.419	37.432	55.337	73.347	75.560	96.345	102.799	CONT	CONT	BLI 1B5B/15BR0 (O&MN)	3.349	28.499	34.791	47.246	30.028	30.389	30.283	CONT	CONT	BLI 1B4B/14B50 (O&MN)		8.400	11.959	0.472	0.484	0.519	0.544	CONT	CONT
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<p>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 on both designs and a waterjet tunnel extension on the LM LCS design will comprise the Flight 0+ baseline to be awarded in FY08 and 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 FY08 through FY09. The LCS Program will concurrently initiate Class Design Services contracts to both industry design teams for development of a Navy Design Package.</p> <p>The LCS Program achieved Milestone A and Program Initiation in May 2004, and is scheduled for a Milestone A update in FY08.</p> <p>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</p> <p>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</p> <p>Universities: Johns Hopkins University Applied Physics Lab, Laurel, MD</p>			

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EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE		
										February 2008		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 4		0603581N/LITTORAL COMBAT SHIP (LCS)					3096/Littoral Combat Ship					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Preliminary Design (Flight 0)	Compet	LM, BIW, Raytheon	32.173	0.000		0.000		0.000		0.000	32.173	0.000
Final Design (Flight 0)	Compet	LM, BIW	175.263	0.000	NOV-06	0.000		0.000		0.000	175.263	0.000
Class Design Services	Compet	TBD	0.000	4.800		0.000		32.000		0.000	36.800	0.000
LCS 1 & 2 Shore Trainers	Cost Plus	LM, BIW	0.000	0.300		7.460		6.103		0.000	13.863	0.000
SH-60B Datalink	Compet	LM, BIW	0.000	0.000		0.000		2.435		0.000	2.435	0.000
Flight 0 C4I	SPD	PEO C4I	0.000	1.982		3.000		4.000		0.000	8.982	0.000
Life Cycle Support Plan	Compet	DCMA/LM	0.000	1.000	MAR-07	0.000		0.000		0.000	1.000	0.000
Combat System C4I Spiral Development	Various	Various	0.000	0.000		0.000		12.000		0.000	12.000	0.000
Subtotal Product Development			207.436	8.082		10.460		56.538		0.000	282.516	0.000
Remarks:												
Government Engineering Support	WX	NSWC/CD, Bethesda, MD	16.503	0.000		0.000		0.000		0.000	16.503	0.000
Government Engineering Support	WX	NSWC/DD, Dahlgren, VA	19.756	1.351	NOV-06	3.500		5.000		0.000	29.607	0.000
Government Engineering Support	WX	NSWC/PC, Panama City, FL	19.815	1.788	NOV-06	0.500		0.500		0.000	22.603	0.000
Government Engineering Support	WX	NUWC, Newport, RI	7.609	0.150	MAR-07	0.150		0.190		0.000	8.099	0.000
Government Engineering Support	WX	NAWC AD, Pax River	7.950	0.195	JAN-07	1.630		1.700		0.000	11.475	0.000
Government Engineering Support	WX	NSWC/CR, Crane, IN	15.300	0.075	NOV-06	0.500		0.250		0.000	16.125	0.000
Government Engineering Support	WX	NSWC/SSES, Philadelphia, PA	15.570	2.800	NOV-06	8.000		7.850		0.000	34.220	0.000
Government Engineering Support	Various	Government Activities	7.260	6.000	VAR	4.100		4.516		0.000	21.876	0.000
Contractor Engineering Support	Seaport	Alion, Arlington, VA	19.351	0.000		0.000		0.000		0.000	19.351	0.000
Contractor Engineering Support	Seaport	Various	13.664	1.259	VAR	1.800		1.500		0.000	18.223	0.000
Labor (Research Personnel)	CPFF	APL/JHU, Laurel, MD	3.030	0.500	SEP-07	0.500		0.500		0.000	4.530	0.000
Government Engineering Support	RX	NAVAIR	0.000	0.000		2.000		0.000		0.000	2.000	0.000
Subtotal Support			145.808	14.118		22.680		22.006		0.000	204.612	0.000
Remarks:												
Test & Evaluation	Seaport	Alion, Arlington, VA	0.900	1.304	OCT-06	2.300	OCT-07	1.200	OCT-08	CONT	CONT	0.000
Test & Evaluation	WX	NSWC/CD, Bethesda, MD	0.500	0.150	OCT-06	0.000		0.000		CONT	CONT	0.000
Test & Evaluation	WX	NSWC/PHD, Port Hueneme, CA	5.467	2.400	OCT-06	2.250	OCT-07	6.000	OCT-08	CONT	CONT	0.000

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
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 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Test & Evaluation	WX	NSWC/SSES, Philadelphia, PA	0.000	6.200	OCT-06	3.800	OCT-07	6.900	OCT-08	CONT	CONT	0.000
Test & Evaluation	WX	NSWC/PC, Panama City, FL	0.000	0.730	OCT-06	0.500	OCT-07	1.900	OCT-08	CONT	CONT	0.000
Test & Evaluation	WX	COMOPTVEFOR	1.483	0.366	OCT-06	0.900	OCT-07	1.500	OCT-08	CONT	CONT	0.000
Test & Evaluation	WX	NSWC/COR, Corona, CA	0.700	0.350	OCT-06	0.750	OCT-07	0.800	OCT-08	CONT	CONT	0.000
Test & Evaluation	WX	Various	0.000	6.782	OCT-06	6.100	OCT-07	15.900	OCT-08	CONT	CONT	0.000
T&E Ordnance	WX	IWS 3	0.000	0.000		5.577	OCT-07	3.323	OCT-08	CONT	CONT	0.000
T&E	Comp	LM/GD	0.000	0.000		0.000		20.000		CONT	CONT	0.000
T&E	WX	SPAWAR, SC	0.075	2.000	OCT-06	1.000		1.000		CONT	CONT	0.000
Subtotal T&E			9.125	20.282		23.177		58.523		CONT	CONT	0.000
Remarks:												
Government Travel		NAVSEA	0.483	0.200	OCT-06	0.250	OCT-07	0.300	OCT-08	CONT	CONT	0.000
CODB		PEO Ships	0.000	1.400	OCT-06	1.450	OCT-07	1.650	OCT-08	CONT	CONT	0.000
Program Management Support		Alion, Arlington, VA	0.000	7.802	OCT-06	7.800	OCT-07	9.070	OCT-08	CONT	CONT	0.000
Program Management Support		Various	0.000	0.570	OCT-06	0.660	OCT-07	2.680	OCT-08	CONT	CONT	0.000
Program Management Support		NSWC/SSES, Philadelphia, PA	0.000	0.458	OCT-06	0.750	OCT-07	0.750	OCT-08	CONT	CONT	0.000
Program Management Support		JJMA, Arlington, VA	0.000	0.540	OCT-06	0.450	OCT-07	0.550	OCT-08	CONT	CONT	0.000
Budget Reductions		DOD	0.000	1.830	OCT-06	2.040	OCT-07	2.400	OCT-08	CONT	CONT	0.000
Subtotal Management			0.483	12.800		13.400		17.400		CONT	CONT	0.000
Remarks:												
Total Cost			362.852	55.282		69.717		154.467		CONT	CONT	0.000

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-4, SCHEDULE PROFILE

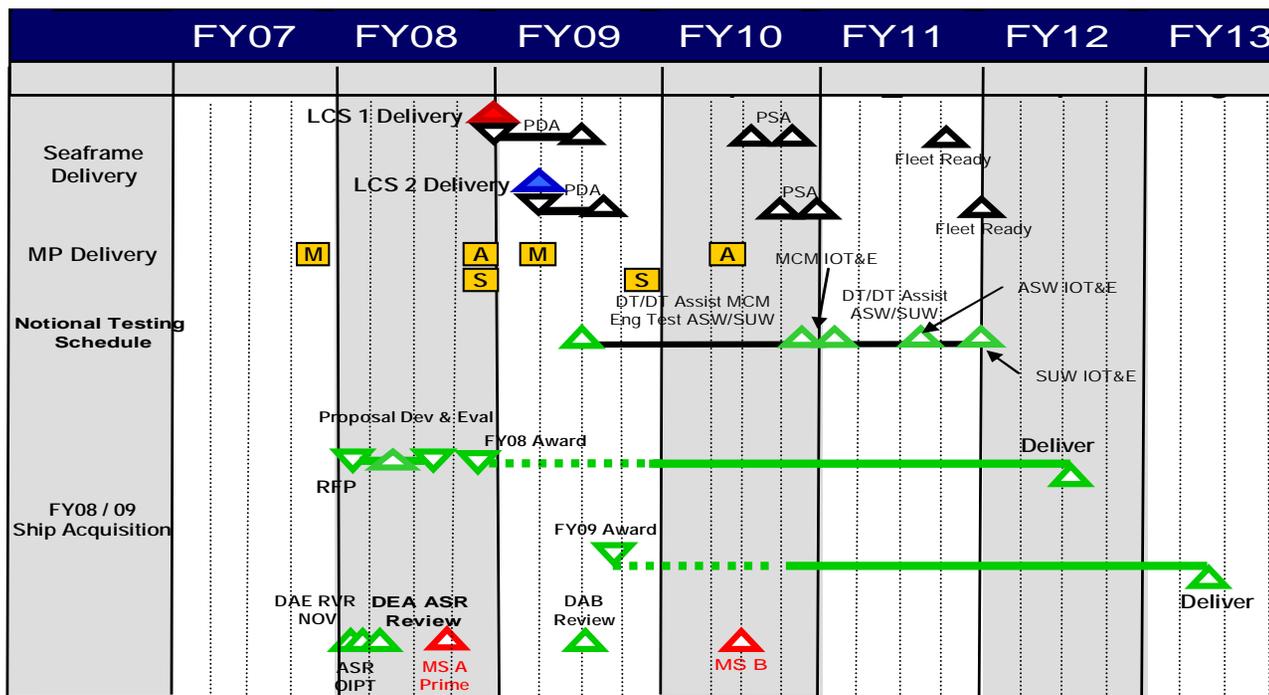
DATE
February 2008

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 4

PROGRAM ELEMENT NUMBER AND NAME
0603581N/LITTORAL COMBAT SHIP (LCS)

PROJECT NUMBER AND NAME
3096/Littoral Combat Ship

Notional Acquisition Schedule



FOR OFFICIAL USE ONLY – BUSINESS SENSITIVE – CONTAINS COMPANY PROPRIETARY INFORMATION Current as of 20 Dec 07

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CLASSIFICATION:		UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL						DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4		PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)			PROJECT NUMBER AND NAME 3096/Littoral Combat Ship			
Schedule Profile		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Mission System Development & Platform Exp		1Q-4Q						
Milestone B					2Q			
Flight 0 Class Design Services			1Q-4Q	1Q-4Q	1Q			
Post Delivery Testing / Operational Testing - Flight 0 Ships			4Q	1Q-4Q	1Q			
Developmental Testing / Operational Testing - Flight 0 RDTE Ships			4Q	1Q-4Q	1Q			1Q-4Q
Class Design Services				1Q-4Q	1Q-4Q			
Combat System & Turnkey C4I Dev.		1Q-4Q	1Q-4Q	1Q-4Q				
Shock Planning/Test (LFT&E)		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RD TEN/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 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	168.387	106.871	170.499	113.839	72.920	117.416	93.015
RDT&E Articles Qty	1	0	1	0	0	0	0
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>Program provides focused war fighting capabilities in littoral mine warfare, small boat neutralization and littoral anti-submarine warfare to enable the US Joint Force to access and operate 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 toused on the Flight 0 Littoral Combat Ships (LCS).</p> <p>Mine Warfare Mission Modules will provide the Joint force commander with the capability to conduct organic mine countermeasure (MCM) operations ranging from first response mine detection and avoidance, to neutralization and sweeping in littoral conditions that preclude hunting, enabling Joint operations to be conducted ahead of power projection forces with reduced need for escorts. This will open transit lanes and operating areas for naval forces. MCM operations will reduce the timeline for access to the contested littoral thereby providing options to the joint force commander.</p> <p>Littoral 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.</p> <p>Littoral 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.</p> <p>Over-the-Horizon Communication Package (formally known as ACP) provides Data Relay Capability to enable LCS to operate off-board sensors (ISR, MIW, SUW, and USW) at significantly extended ranges. This project provides funds for the design and development of the prototype and engineering development model (EDM) systems, integration with LCS/Vertical Take-Off and Landing Unmanned Aerial Vehicle (VTUAV).</p>							

CLASSIFICATION:		UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY RD TEN/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 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	24.716	10.719	23.118
RDT&E Articles Quantity	0	0	0
MIW MISSION MODULES DEVELOPMENT			
<p>FY07: Continuation of mission module testing, integration & certification; Mission module fabrication for Mission Package; Human Systems Integration (HSI); ILS documentation development and updates; Mission Package training; Modeling & Simulation; and Remote Mine Hunting System (RMS) installation on LCS.</p> <p>FY08: Completion of Spiral Alpha for mission module integration.</p> <p>FY09: Continue finalization of Spiral Alpha mission module integration (\$4.000); Support at-sea T&E (\$9.000), System Eng (\$5.038), T&E (\$1.665). MIW Team Trainer Software (\$3.415).</p>			
	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	41.946	20.700	9.731
RDT&E Articles Quantity	0	0	0
ASW MISSION MODULE PACKAGE			
<p>FY07: Continuation of the development, integration, and testing of Unmanned Surface Vehicle (USV) bi-static mission module which includes Ultralite Towed Array Sonar (UTAS) and Multi-static Offboard Source (MSOBS) mission systems; Continue the development, integration, and testing of the Remote Towed Array (RTA) & Remote Towed Active Sonar (RTAS) mission systems; Continue the integration of the dipping sonar onto the USV; USV w/dipper testing; At sea array tow characteristics test.</p> <p>FY08: Continuation of the development, integration, testing of MP#1 & MP#2</p> <p>FY09: Continuation of the development, integration, testing ASW MP#2.</p>			
	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	53.306	36.300	67.450
RDT&E Articles Quantity	1	0	1
SUW MISSION MODULES DEVELOPMENT			
<p>FY07: Continue development of Build 0.1& 0.2 and testing with Mission Package Development Lab (MPDL); implement final safety approach process; Developed training/maintenance manuals; Provided Package prototype HW/SW to support certification efforts; continue Mission Package development and test evaluation (\$45.627); Procured two(2)30 MM Guns(2 Guns per module (\$6.000)); Supportive H/W (1.679).</p> <p>FY08: Continue the SUW Mission Packages development (H/W & S/W), developmental efforts with the Army on Non-Line of Site-Launcher System (NLOS-LS); Continue developmental efforts for structure test on board ship and ship integration efforts (\$33.780); Procure T&E Missiles and Supportive H/W (\$2.520).</p>			

CLASSIFICATION:		UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)				DATE February 2008
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4		PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)		PROJECT NUMBER AND NAME 3129/LCS Mission Package Development
FY09: Continue developmental efforts with the Army on NLOS-LS (\$12.400); Continue H/W Sys Engineering, Fabrication, Environmental & Safety, Integration, ILS, HSI, and PM efforts (\$25.900); S/W efforts for build 3.0 into NLOS-LS (\$6.000); Conduct structural test firing on board ship and other at-sea T&E efforts (\$12.000); Procure two (2) 30MM Guns MP 2 (2 guns per module (\$5.300)); Procure one (1) 30MM Gun MP 2 (\$2.650); Procure and Fabricate 1 NLOS Module (\$3.200).				
		FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost		41.475	31.305	59.883
RDT&E Articles Quantity		0	0	0
COMMON MISSION MODULES DEVELOPMENT				
FY07: Installation of the Mission Package Computing Environment (MPCE) build 1 in ship (\$1.214); Complete Command and Control (C2) build 1.1 for MIW (\$10.213); begin Fire Scout integration and Rehosting Fire Scout Tactical Control System (TCS) S/W in LCS (\$6.257); Continue Mission Package Integrator efforts (MIW, ASW, SUW, C2) (\$8.012); USV Commonality efforts, integration and demonstration, common interface control documentation, Initiate development of C2, fund Technology Transition Initiative (TTI) for USV development(\$6.779).				
FY08: Mission Package Computing Environment (MPCE) - Development, integration, & testing to support the H/W for Mission Packages ASW, MIW, and SUW (\$2.950); Mission Package Integration and Certification, USV Development; integration of common Command and Control, and technical support for system test and evaluation (\$28.355).				
FY09: Common Command and Control integration, and technical support for system test and evaluation (\$35.048); Continue MPCE development supporting HW for Mission Packages (\$1.850); Continue Fire Scout integration and Rehosting Fire Scout TCS S/W in LCS(\$5.000); Portable Seaframe Simulator (PSS) development (\$8.543); development and integration of the Portable Seaframe Launch and Recovery system (\$1.800); Weapon Zone Enclosure support (\$.900); Continue MVCS H/W & S/W development (\$2.742) and T&E (\$1.300); Test & Evaluation support (\$2.700).				
		FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost		6.944	7.847	10.317
RDT&E Articles Quantity		0	0	0
OVER-THE-HORIZON COMMUNICATION DEVELOPMENT				
FY07 & FY08: Accomplishments: Award contracts to support the development of performance specifications for the Over-the-Horizon Communication Package development contract. Prepare program specifications, requirements and documentation including contract request for proposal (RFP), statement of work, Contract Data Requirements List (CDRLs) and systems requirements documents. Complete and obtain approval of Over-the-Horizon Communication Package acquisition documentation for MS B decision.				
FY09: Integrate and procure Mission Module Radio (MMR over-the-horizon comm's).				

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

DATE

February 2008

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 4PROGRAM 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 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
BLI 1600 (OPN)	78.741	0.000	131.241	234.673	242.184	252.298	227.441	CONT	CONT
BLI 2127 (SCN)	93.000	337.106	920.000	1,379.503	1,379.555	1,839.850	2,760.162	CONT	CONT
BLI 4221 (WPN)			2.786	24.522	47.353	45.261	10.701	CONT	CONT
BLI 0443 (APN)	37.419	37.432	55.337	73.347	75.560	96.345	102.799	CONT	CONT
BLI 1B5B/15BRO (O&MN)		24.776	25.031	30.010	12.682	12.662	12.643	CONT	CONT
BLI 1B4B/14B50 (O&MN)		8.400	11.959	0.472	0.484	0.519	0.544	CONT	CONT
BLI 1C1C/11C70 (O&MN)	0.000	0.000	1.554	1.768	2.224	2.835	3.849	CONT	CONT

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.

(U) Over-the-Horizon Communication Package - A competitive contract will be awarded to two vendors for the design, development, integration and demonstration of the Advanced Communications Package. There will be a down select to one vendor for the production phase.

E. MAJOR PERFORMERS:

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE		
										February 2008		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 4		0603581N/LITTORAL COMBAT SHIP (LCS)					3129/LCS Mission Package Development					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
MIW Mission Module Development			0.000	0.000		0.000		0.000		0.000	0.000	0.000
MIW - Sys Eng	WX	NSWC PC	41.358	19.001	OCT-06	7.743	OCT-07	9.038	OCT-08	6.400	83.540	0.000
Common - DATA MISSION PAYLOAD (Over-the-Horizon Communication Package)	Various	Various	0.000	0.000		0.000		10.317		0.000	10.317	0.000
Common - Spiral			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Common - Training			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Common - Common Vehicles (RMMVs & USVs)	Various	Various	8.204	5.476	JAN-07	0.000		0.000		0.000	13.680	0.000
Common - Common Vehicles - OTHCP Design, Dev & Integration	CPFF	TBD	0.000	2.105	JAN-07	7.847	FEB-08	0.000		0.000	9.952	0.000
Common - Common Vehicles - OTHCP Acquisition/PM Support	CPFF	BAH, McLean, VA	1.200	4.255	FEB-07	0.000		0.000		0.000	5.455	0.000
Common - Common Vehicles - OTHCP Engineering Support	WX	Various	0.200	0.584		0.000		0.000		0.000	0.784	0.000
Common - T&E	Various	Various	0.000	0.000		0.000		3.300	OCT-08	0.000	3.300	0.000
Common - MPCE			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Common - MPCE - H/W		NSWC PC	0.000	0.000		0.100	OCT-07	0.000	OCT-08	0.000	0.100	0.000
Common - MPCE - Sys Eng H/W		NSWC PC	1.300	2.974	OCT-06	1.650	OCT-07	0.000	OCT-08		5.924	0.000
Common - MPCE - Sys Eng S/W		NSWC PC	0.000	0.000		1.200	OCT-07	0.500	OCT-08	0.000	1.700	0.000
Common - Integration		NSWC PC	0.000	0.000		1.200	OCT-07	7.300	OCT-08	0.000	8.500	0.000
Common - Common C2	Various	Various	11.105	9.467	OCT-06	0.000		0.000		0.000	20.572	0.000
Common - MVCS - H/W		NSWC PC	0.000	0.000		1.506	OCT-07	1.468	OCT-08	0.000	2.974	0.000
Common - MVCS - S/W		NSWC PC	0.000	0.083		1.245	OCT-07	1.274	OCT-08	0.000	2.602	0.000
Common - MVCS - Integration		NSWC PC	0.000	2.943	OCT-06	2.235	OCT-07	0.000		0.000	5.178	0.000
Common - MVCS - ILS	Various	Various	0.000	0.000		0.535	OCT-07	0.000		0.000	0.535	0.000
Common - MPDL			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Common - MPI	CPAF	Northrop Grumman-Bethpage, NJ	4.034	7.125	DEC-07	10.927	NOV-07	14.600	OCT-08	0.000	36.686	0.000
Common - Overarching			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Common - Overarching - Sys Eng H/W	Various	Various	0.000	2.775		1.205		0.364		0.000	4.344	0.000
Common - Overarching - Sys Eng S/W			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Common - Overarching - Envir & Safety			0.000	0.000		0.000		1.456		0.000	1.456	0.000
Common - Overarching - Integration			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Common - Overarching - ILS			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Common - Overarching - HSI	Various	Various	0.000	0.000		0.000		0.000		0.000	0.000	0.000

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE			
									February 2008			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 4		0603581N/LITTORAL COMBAT SHIP (LCS)					3129/LCS Mission Package Development					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Common - MPCE ILS		NSWC PC	0.000	0.000		0.300	OCT-07	0.000	OCT-08	0.000	0.300	0.000
MIW Team Trainer S/W	WX	NSWC PC	0.000	0.000		0.000		3.415		0.000	3.415	0.000
ASW - At-Sea T&E	WX	NUWC Newport RI	0.000	0.000		0.000		5.300		0.000	5.300	0.000
Common - HELO Support	WX	NAVAIR Pax River	0.000	0.000		0.000		5.400		0.000	5.400	0.000
MIW - ILS	WX	NSWC PC	0.000	3.347	OCT-06	1.857	OCT-07	0.000		0.000	5.204	0.000
MIW - HSI	WX	Various	0.000	0.000		0.000		0.000		0.000	0.000	0.000
MIW - T&E	WX	NSWC PC	0.000	0.168	OCT-06	1.119	OCT-07	1.665	OCT-08	0.000	2.952	0.000
MIW - At-Sea T&E	TBD	TBD	0.000	0.000		0.000		9.000	OCT-08	0.000	9.000	0.000
ASW Mission Module Development	Various	Various	70.799	0.000		0.000		0.000		0.000	70.799	0.000
ASW - Sys Eng H/W	WX	NUWC Newport RI	0.000	8.279	OCT-06	5.877	OCT-07	1.131	OCT-08	2.988	18.275	0.000
ASW - Sys Eng S/W	WX	SSC SD	0.000	9.749	OCT-06	3.350	OCT-07	0.000	OCT-08	0.000	13.099	0.000
ASW - Envir & Safety	WX	NUWC Newport RI	0.000	0.790	OCT-06	0.750	OCT-07	1.000	OCT-08	0.000	2.540	0.000
ASW - Integration	WX	NUWC Newport RI	0.000	7.241	OCT-06	3.996	OCT-07	1.300	OCT-08	1.383	13.920	0.000
ASW - ILS	WX	NUWC Newport RI	0.000	0.489	OCT-06	1.100	OCT-07	1.000	OCT-08	0.063	2.652	0.000
ASW - HSI	WX	NUWC Newport RI	0.000	0.750	OCT-06	0.310	OCT-07	0.000	OCT-08	0.000	1.060	0.000
ASW - T&E	WX	NUWC Newport RI	0.000	1.200	OCT-06	1.100	OCT-07	0.000	OCT-08	0.000	2.300	0.000
ASW - Program Management	WX	NUWC Newport RI	0.000	4.948	OCT-06	2.702	OCT-07	0.000	OCT-08	0.063	7.713	0.000
SUW Mission Module Development	WX	Various	34.223	0.000		0.000		0.000		0.000	34.223	0.000
SUW - Sys Eng H/W	WX	NSWC Dah VA	0.000	34.017	NOV-06	20.091	OCT-07	32.000	OCT-08	0.000	86.108	0.000
SUW - Sys Eng S/W	WX	NSWC DAH	0.000	1.670	NOV-06	0.088	OCT-07	6.000	OCT-08	0.000	7.758	0.000
SUW - Envir & Safety	WX	Various	0.000	0.832	NOV-06	0.614	OCT-07	3.000	OCT-08	0.000	4.446	0.000
SUW - Integration	WX	NSWC Dah VA	0.000	1.181	NOV-06	2.163	OCT-07	5.000	OCT-08	0.000	8.344	0.000
SUW - ILS	WX	NSWC Phd	0.000	2.550	NOV-06	2.700	OCT-07	4.105	OCT-08	0.000	9.355	0.000
SUW - H S I	WX	NSWC Dah VA	0.000	0.300	NOV-06	0.218	OCT-07	0.895	OCT-08		1.413	0.000
SUW - T&E	WX	NSWC Dah VA & Phd	0.000	0.260	NOV-06	0.586	OCT-07	3.000	OCT-08	0.000	3.846	0.000
SUW - Program Management	WX	NSWC Dah VA	0.000	0.817	NOV-06	1.820	OCT-07	2.300	OCT-08	0.000	4.937	0.000
Common Mission Module Development			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Common - FIRESOULT (Integration & TCS S/W)	Various	Various	0.688	6.257	OCT-06	4.900	OCT-07	5.000	OCT-08	0.000	16.845	0.000
Subtotal Product Development			173.111	141.633		93.034		140.128		10.897	558.803	0.000

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE			
									February 2008			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 4		0603581N/LITTORAL COMBAT SHIP (LCS)					3129/LCS Mission Package Development					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Remarks:												
MIW - BPAUV	CPAF	Bluefin, MA & NSWC PC	2.400	2.200	DEC-06	0.000		0.000		0.000	4.600	0.000
ASW - UDS		NUWC Newport RI	0.000	8.500	OCT-06	0.765	OCT-07	0.000	OCT-08	0.363	9.628	0.000
ASW - USV		NUWC Newport RI	9.310	0.000		0.750	OCT-07	0.000	OCT-08	0.188	10.248	0.000
ASW - UTAS/MSMOBS		NUWC Newport RI	0.000	0.000		0.000		0.000	OCT-08	0.188	0.188	0.000
ASW - COMMS		SSC San Diego CA	0.000	0.000		0.000		0.000	OCT-08	0.800	0.800	0.000
ASW - RMV MF Bi-STATIC		NUWC Newport RI	0.000	0.000		0.000		0.000	OCT-08	2.475	2.475	0.000
ASW - SUPPORT MODULES		NUWC Newport RI	0.000	0.000		0.000		0.000	OCT-08	0.020	0.020	0.000
ASW - COMMS (MULTI-MISSION RADIO)		SSC San Diego CA	0.000	0.000		0.000		0.000	OCT-08	0.000	0.000	0.000
SUW - Supportive H/W	WX	NSWC Dah VA	0.000	6.279	DEC-06	0.092	OCT-07	0.000	OCT-08	0.000	6.371	0.000
SUW - NLOS-LS	FFP	Raytheon, AZ	0.000	0.000		0.000		0.000	NOV-08	0.000	0.000	0.000
SUW - NLOS-LS Module		NSWC Dah VA	0.000	0.000		2.000	OCT-07	3.200	NOV-08	2.100	7.300	0.000
SUW - 30 MM Gun (2 Guns per Module)	FFP	General Dynamics Land Systems	0.000	5.400	DEC-06	3.500	NOV-07	0.000	NOV-08	0.000	8.900	0.000
SUW - Med Cal Gun Module		NSWC Dah VA	4.200	0.000		0.000		0.000		0.000	4.200	0.000
SUW - NLOS-LS Missiles for T&E	FFP	Raytheon, AZ	0.000	0.000		2.428	OCT-07	0.000		0.000	2.428	0.000
Common - Portable Seaframe L&R	WX	NUWC Newport RI	0.000	0.000		0.000		1.800	NOV-08	0.000	1.800	0.000
Common - Weapon Zone Enclosure	WX	NSWC Dah VA	0.000	0.000		0.000		0.900	NOV-08	0.000	0.900	0.000
Common - Testing Spares	WX	NSWC PC	0.000	0.000		0.000		2.700	NOV-08		2.700	0.000
SUW - 30 MM Gun MP 2 (2)	FFP	General Dynamics Land Systems	0.000	0.000		0.000		5.300	NOV-08	0.000	5.300	0.000
SUW - 30 MM Gun MP 3 (1)	FFP	General Dynamics Land Systems	0.000	0.000		0.000		2.650	NOV-08	2.650	5.300	0.000
Common - Portable Seaframe Simulator	WX	NSWC PC	0.000	0.000		0.000		8.543	NOV-08	0.000	8.543	0.000
Subtotal Equipment and Hardware			15.910	22.379		9.535		25.093		8.784	81.701	0.000
Remarks:												
Common - Program Management Support	Various	Various	1.893	1.900	OCT-06	1.947	OCT-07	2.155	OCT-08	0.000	7.895	0.000
Common - Travel Support	PD	NAVSEA	0.070	0.075	OCT-06	0.080	OCT-07	0.080	OCT-08	0.000	0.305	0.000
Common - ILS, C4I and Aviation Rep Support	Various	Various	2.490	2.400	OCT-06	2.275	OCT-07	3.043	OCT-08	0.000	10.208	0.000

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY RDTE/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 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Subtotal Management			4.453	4.375		4.302		5.278		0.000	18.408	0.000
Remarks:												
Total Cost			193.474	168.387		106.871		170.499		19.681	658.912	0.000

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-4, SCHEDULE PROFILE

DATE
February 2008

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 4

PROGRAM ELEMENT NUMBER AND NAME
0603581N/LITTORAL COMBAT SHIP (LCS)

PROJECT NUMBER AND NAME
3129/LCS Mission Package Development

PMS 420 LCS Mission Modules

PMS 420 MP Schedule

Mission Package / MPCE Deliveries

	FY07	FY08	FY09	FY10	FY11	FY12	FY13
MIW MP	▲ MIW 1 4 QTR 07						
ASW MP		▲ ASW 1 4 QTR 08		▲ ASW 2 3 QTR 10			
SUW MP		▲ SUW 1 4 QTR 08	▲ SUW 2 4 QTR 09				
MPCE Mission Package Computing Environment	▲ MPCE 1, 2 FY06						
Note: MP / MPCE delivery dates represent availability for ship integration and testing.							

CLASSIFICATION:		UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL						DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4		PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)			PROJECT NUMBER AND NAME 3129/LCS Mission Package Development			
Schedule Profile		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
MIW MP 1 Deliveries		SEP 07						
ASW MP 1 Deliveries			SEP 08					
ASW MP 2 Deliveries					APR 10			
SUW MP 1 Deliveries			AUG 08					
SUW MP 2 Deliveries				AUG 09				
MPCE 3 Deliveries		JUL 07						

CLASSIFICATION:		UNCLASSIFIED					
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RD TEN/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 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	430.672	36.312	46.042	52.000	0.000	0.000	0.000
RDT&E Articles Qty	0	0	0	0	0	0	0
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>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.</p> <p>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 (MIW). 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.</p> <p>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.</p> <p>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 MIW, ASW, and SUW mission packages, construction of the first two Flight 0 Class Ships that will deliver in 2008 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.</p> <p>The LCS Program achieved Milestone A and Program Initiation in May 2004, and is scheduled for a Milestone A update in FY08.</p> <p>The LCS construction phase includes the construction of two LCS Flight 0 Class Ships, one of each of two designs, by two different industry teams, and includes Government Furnished Equipment (GFE) for ships systems, Final System Design (FSD) and Mission Systems and Ship Integration Team (MSSIT), and Outfitting and Post Delivery.</p>							

CLASSIFICATION:		UNCLASSIFIED
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RD TEN/BA 4	0603581N/LITTORAL COMBAT SHIP (LCS)	4018/Littoral Combat Ship Construction
	LCS 1 (\$M)	LCS 2 (\$M)
Basic Construction	471	440
Change Orders	15	20
Other	33	40
GFE	<u>12</u>	<u>7</u>
Total End Cost	531	507
FSD/MSSIT	25	54
OF/PD	<u>75</u>	<u>75</u>
Total	631	636
Notes:		
LCS 1 and LCS 2 Total Costs reflect a shortfall which will be addressed via a future reprogramming request. FY 2008 funding (\$80.5M) shown under project 9999/Congressional Adds is for LCS 1 and LCS 2.		
FSD/MSSIT - Final System Design / Mission Systems and Ship Integration Team		
OF/PD - Outfitting / Post Delivery		

CLASSIFICATION:		UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY RD TEN/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 2007	FY 2008	FY 2009
Construction	401.672	0.000	0.000
RDT&E Articles Quantity	0	0	0
Provides for the construction, production, test and trials of LCS 1 and LCS 2 ships, including execution of Change Orders and procurement of Government Furnished Equipment (GFE), as well as Final System Design (FSD) and Mission Systems and Ship Integration Team (MSSIT) efforts.			
FY2007/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 (stage 1-7) and related certification efforts.			
	FY 2007	FY 2008	FY 2009
Outfitting and Post Delivery	29.000	36.312	46.042
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 2007: Initiated procurement of LCS 1 and LCS 2 spare and repair parts for shipboard equipment, shipboard equipage and tools, Force Protection Equipment, consumables, HAZMAT and other materials, and medical space items, including medical supplies. Completed validation of COSAL allowances for LCS 1. Completed development of an Interim Support Plan (ISP) for shipboard maintenance. Initiated procurement of shipboard maintenance equipment. Initiated procurement of instrumentation and data acquisition system (DAS) long-lead material. Initiated planning and coordination of post-delivery test and trials, including test plans and schedules for signature trials, HM&E assessments, and certification events.			
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, sea frame, and the integrated product. Conduct Combat Systems Ship Qualification Trials (CSSQT) testing of Seaframes and mission packages. Perform emergent repairs during PDTT 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			

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)	DATE February 2008
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APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4	PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)	PROJECT NUMBER AND NAME 4018/Littoral Combat Ship Construction
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Sail Away.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
BLI 1600 (OPN)	78.741	0.000	131.241	234.673	242.184	252.298	227.441	CONT	CONT
BLI 2127 (SCN)	93.000	337.106	920.000	1,379.503	1,379.555	1,839.850	2,760.162	CONT	CONT
BLI 4221 (WPN)			2.786	24.552	47.353	45.261	10.701	CONT	CONT
BLI 0443 (APN)	37.419	37.432	55.337	73.347	75.560	96.345	102.779	CONT	CONT
BLI 1B5B/15BRO (OMN)	3.349	28.499	34.791	47.246	30.028	30.389	30.283	CONT	CONT
BLI 1B4B/14B50 (OMN)		8.400	11.959	0.472	0.484	0.519	0.544	CONT	CONT

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 FY08 and 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 FY08 through FY09. 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 is scheduled for a Milestone A update in FY08.

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

Government Field Activities:

- NSWC Dahlgren, Dahlgren, VA
- NSWC Carderock, Philadelphia, PA
- Space and Naval Warfare Command (SPAWAR), Charleston, SC

CLASSIFICATION:		UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4	PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)	PROJECT NUMBER AND NAME 4018/Littoral Combat Ship Construction	
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			
									February 2008			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD TEN/BA 4		0603581N/LITTORAL COMBAT SHIP (LCS)					4018/Littoral Combat Ship Construction					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost (\$000)	FY 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
LCS Ship 1 Construction	Comp	Lockheed Martin	259.088	138.933	VAR	0.000		0.000		0.000	398.021	0.000
LCS Ship 1 Change Orders	Comp	Lockheed Martin	0.000	15.000	VAR	0.000		0.000		0.000	15.000	0.000
LCS Ship 1 GFE	Comp	Lockheed Martin	8.772	3.228	OCT-06	0.000		0.000		0.000	12.000	0.000
LCS Ship 2 Construction	Comp	General Dynamics	188.913	183.127	VAR	0.000		0.000		0.000	372.040	0.000
LCS Ship 2 Change Orders	Comp	General Dynamics	0.000	20.000	VAR	0.000		0.000		0.000	20.000	0.000
LCS Ship 2 GFE	Comp	General Dynamics	6.275	0.725	OCT-06	0.000		0.000		0.000	7.000	0.000
LCS Ship 1 FSD/MSSIT	Comp	Lockheed Martin	24.200	0.800	6-Oct	0.000		0.000		0.000	25.000	0.000
LCS Ship 2 FSD/MSSIT	Comp	General Dynamics	46.782	7.218	VAR	0.000		0.000		0.000	54.000	0.000
Subtotal Product Development			534.030	369.031		0.000		0.000		0.000	903.061	0.000
Remarks:												
Other Program Costs	Various	Various	0.000	32.641	VAR	0.000		0.000		0.000	32.641	0.000
Subtotal Support Costs			0.000	32.641		0.000		0.000		0.000	32.641	0.000
Remarks:												
Subtotal Test and Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
Subtotal Management Services			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
Initial Outfitting / ISP	Various	Various	1.585	20.111	VAR	7.200	VAR	8.042	VAR	0.000	CONT	0.000
Testing	WX	NSWC (Various)	0.763	3.889		10.000	VAR	0.000	VAR	0.000	CONT	0.000
Post Delivery ECP's	Comp	LM/GD	0.000	5.000		14.312	VAR	23.000	VAR	0.000	CONT	0.000
PSA/PSA Planning	WX	Supship (Various)	0.000	0.000		4.800	VAR	15.000	VAR	0.000	CONT	0.000
Subtotal Outfitting / Post Delivery			2.348	29.000		36.312		46.042		0.000	CONT	0.000

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RD TEN/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 2007 Cost (\$000)	FY 2007 Award Date	FY 2008 Cost (\$000)	FY 2008 Award Date	FY 2009 Cost (\$000)	FY 2009 Award Date	Cost to Complete (\$000)	Total Cost (\$000)	Target Value of Contract
Remarks:												
Total Cost			536.378	430.872		36.312		46.042		0.000	CONT	0.000

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-4, SCHEDULE PROFILE

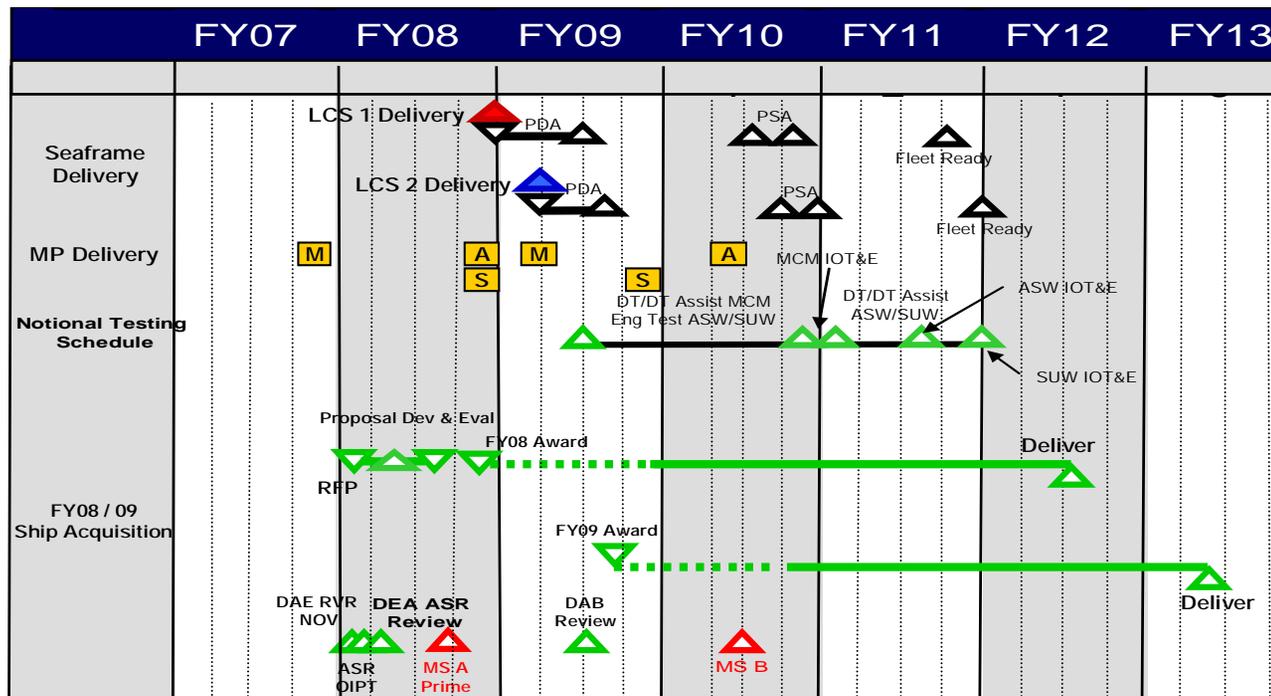
DATE
February 2008

APPROPRIATION/BUDGET ACTIVITY
RD TEN/BA 4

PROGRAM ELEMENT NUMBER AND NAME
0603581N/LITTORAL COMBAT SHIP (LCS)

PROJECT NUMBER AND NAME
4018/Littoral Combat Ship Construction

Notional Acquisition Schedule



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CLASSIFICATION:		UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL						DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4		PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)			PROJECT NUMBER AND NAME 4018/Littoral Combat Ship Construction			
Schedule Profile		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Detail Design and Construction - Flight 0		1Q-4Q	1Q-4Q	1Q-2Q				
Milestone B					2Q			
LCS 1 Delivery (Flight 0)			4Q					
LCS 2 Launch (Flight 0)			2Q					
LCS 2 Delivery (Flight 0)				1Q				
Post Shakedown Availability (PSA) LCS 1 & 2				4Q	1Q			
PSA Sea Trials					1Q			

CLASSIFICATION:		UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION				DATE February 2008
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4	PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)	PROJECT NUMBER AND NAME 9999/CONGRESSIONAL ADDS		
B. ACCOMPLISHMENTS/PLANNED PROGRAM:				
	FY 2007	FY 2008	FY 2009	
TBD/NEW PAYLOADS AND SENSORS UNMANNED SURFACE VEHICLE SYSTEM	0.000	1.590	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 2007	FY 2008	FY 2009	
TBD/Remote Multi-Mission Vehicle Anti-Submarine Warfare (ASW)	0.000	2.385	0.000	
RDT&E Articles Quantity	0	0	0	
Funding to support a feasibility demo of a single tow capability for Medium Frequency Bi-Static capability.				
	FY 2007	FY 2008	FY 2009	
Fully Fund LCS 1 and 2	0.000	80.485	0.000	
RDT&E Articles Quantity	0	0	0	
Funding for construction of LCS 1 and LCS 2				
	FY 2007	FY 2008	FY 2009	
9997N/LCS Mission Module Enhanced Tactical Response	4.201	0.000	0.000	
RDT&E Articles Quantity	0	0	0	
Funding to extend depth of program of record derivation and select non program of record risk mitigation efforts to: Field a Continuous Active Sonar (CAS) capable integrated ASW USV threat redetection, localization and engagement capability; Develop a common USV sensor launch & recovery system; Establish the LCS ASW Operations Support Center to provide end-user responsive pier side operator training refresh, reachback mission planning and prosecution support; Adapt netted distributed sensor grid communication protocols and data sharing methods for off board sensor systems real time situational awareness; Enable Mission Module USV increased bandwidth communications connectivity, and advanced autonomous data fusion and contact management				
	FY 2007	FY 2008	FY 2009	
TBD/ASW CONTACT MANAGEMENT MISSION PLANNING IMPROVEMENT	0.000	2.782	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 2007	FY 2008	FY 2009	
TBD/LCS MISSION PACKAGE ENTERPRISE	0.000	3.975	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 offboard				

CLASSIFICATION:		UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 4	PROGRAM ELEMENT NUMBER AND NAME 0603581N/LITTORAL COMBAT SHIP (LCS)	PROJECT NUMBER AND NAME 9999/CONGRESSIONAL ADDS	
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 2007	FY 2008	FY 2009
9821N/C Remote Operation of Active Sonar Technology	0.996	0.000	0.000
RDT&E Articles Quantity	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 2007	FY 2008	FY 2009
9822N/C Unmanned Surface Vehicle Concepts & Technology	2.150	0.000	0.000
RDT&E Articles Quantity	0	0	0
Initiated common USV program transition, concept development, and integration for LCS. This concept focused on a critical need of the Navy as it seeks to develop and deploy rapidly reconfigurable, multi-mission unmanned surface vehicles (USVs) of modular design. This effort provided: Systems engineering and modeling and simulation (M&S) tools to support USV system module development and budget decisions Assessment of operational performance versus cost, programmed capabilities, engineering concepts/designs Risk analyses of operational concepts, and combination of USV systems and Sensor technology.			
	FY 2007	FY 2008	FY 2009
9996N/LCS ASW Mission Area Commonality	2.247	0.000	0.000
RDT&E Articles Quantity	0	0	0
Conduct coordinated "build-test-build" testing for LCS surface combatants and embarked off-board platforms, demonstrate an accelerated path towards enhanced joint net-centric operational ASW effectiveness.			