

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4				R-1 ITEM NOMENCLATURE 0603581N - Littoral Combat Ship (LCS)			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	450.783	573.957	319.671	187.568	132.776	144.064	63.173
3096 - LCS Development	228.034	85.955	57.067	60.327	43.153	43.937	22.359
3129 - Mission Package Project	0.000	206.757	162.339	90.439	82.536	100.127	40.814
4018 - Littoral Combat Ship Construction	222.749	275.045	100.265	36.802	7.087	0.000	0.000
9999 - Undistributed RDT&E & Congressional Add	0.000	6.200	0.000	0.000	0.000	0.000	0.000
Defense Emergency Response Funds (DERF) Funds: N/A							
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This Program Element (PE) provides funds for development integration and testing of the Littoral Combat Ship (LCS). Also included in the PE is detail design and construction for two ships of Flight 0, and procurement of mission packages for these Flight 0 ships. The LCS is to be a fast, agile, and stealthy surface combatant capable of operating in support of anti-access missions against asymmetric threats in the littorals. Primary access-focused missions include prosecution of small boats, mine counter-measures, littoral anti-submarine warfare (ASW). Inherent capabilities include: intelligence, surveillance and reconnaissance, homeland defense, Special Operating Forces (SOF) support and logistic support for movement of personnel and supplies, maritime interdiction / interception operations (MIO), anti-terrorism / force protection (AT/FP), air self defense, and joint littoral mobility.  Issue 9999 - Congressional Adds: \$6.2M for ASW multistatic sensor mission planning upgrade, remote operation of active sonar technology and unmanned surface vehicle concepts and technology.							

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Exhibit R-2, RDTEN Budget Item Justification  
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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>Feb 2006</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>		PROGRAM ELEMENT NUMBER AND NAME 0603581N - Littoral Combat Ship (LCS)			PROJECT NUMBER AND NAME 3096 - Littoral Combat Ship Development			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost	<b>228.034</b>	<b>85.955</b>	<b>57.067</b>	<b>60.327</b>	<b>43.153</b>	<b>43.937</b>	<b>22.359</b>	
RDT&E Articles Qty								
<p><b>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b></p> <p>The LCS is to be a fast, agile, and stealthy surface combatant capable of operating in support of anti-access missions against asymmetric threats in the littorals. Primary access-focused missions include: prosecution of small boats, mine counter-measures, littoral anti-submarine warfare (ASW). Inherent capabilities include intelligence, surveillance and reconnaissance, homeland defense, SOF support and logistic support for movement of personnel and supplies. This project provides funds for the total ship system engineering, integration, program execution, platform development, and mission systems development. Mission systems development includes architectures, interfaces and development of mission systems. Mission systems development also includes the procurement of the mission packages to be used on the Flight 0 ships. Platform development includes platform experimentation and platform and ship system design and integration.</p>								

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EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>Feb 2006</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>	PROGRAM ELEMENT NUMBER AND NAME 0603581N - Littoral Combat Ship (LCS)	PROJECT NUMBER AND NAME 3096 - Littoral Combat Ship Development		
<b>B. Accomplishments/Planned Program</b>				
	FY 05	FY 06	FY 07	
<b>LCS Program</b>	16.487	30.098	15.985	
RDT&E Articles Quantity				
<p><b>LCS Program Analysis, Engineering, Integration, &amp; Management</b></p> <p>Continue cost and risk analysis. Continue the development of operational context in which LCS will operate. This includes development and update of Concept of Operations (CONOPS), Initial Capabilities Document (ICD), Capabilities Development Document (CDD) and the Capabilities Performance Document (CPD). Held Flight 0 OIPT in October 2005. Begin documentation for Milestone B. Continue requirements and effectiveness analysis for Flight 0. Completed: IRD and ICD updated/developed and Navy approved in support of Final Design request for proposal, CONOPS finalized with Fleet approval, Flight 0 CDD developed and JROC approved for Milestone A and Program Initiation, and began risk management planning and implementation.</p> <p>FY05 - Continued development and update of Concept of Operations (CONOPS), Begin work on acquisition documentation, prepared for and held Flight 0 OIPT in October 2005.</p> <p>FY05-06 - Continue the development of operational context in which LCS will operate. Begin documentation for Milestone B. Continue requirements and effectiveness analysis for LCS</p> <p>FY05-07 - Continue cost and risk analysis. Continue risk management planning and implementation.</p>				
	FY 05	FY 06	FY 07	
<b>LCS System-of-Systems Development, Engineering &amp; Experimentation</b>	33.000	43.757	28.082	
RDT&E Articles Quantity				
<p><b>LCS System-of-Systems Development, Engineering &amp; Experimentation</b></p> <p>Continue Systems Engineering, Integration Testing to include; System Architecture/ Interface Development, Ship Systems Engineering/Integration/Test, Core Systems Engineering/Integration/Test, Network Systems Engineering/Integration/Test, Human Systems Integration/Engineering/Test, Logistics &amp; Training Development, and Shipbuilding Materials and Construction Technique Development.</p> <p>LCS Technical Team participates, provides oversight and monitors industry preliminary system design, and final design for Flight 0. Completed: Ship Design management and technical review of Industry Preliminary design. Awarded Final Design contracts within the limited time provided in order to maintain accelerated acquisition timeline.</p> <p>FY 05 - The LCS Technical Team continued to provide oversight and monitoring of Flight 0 final design. Awarded detail design and construction contract for LCS.</p> <p>FY 06 - Continue support of Design for Flight 0.</p> <p>FY 07 Continue participation in future flight design.</p> <p>The systems development team consists of Laboratories, Government Warfare Centers, Universities and selected technical support contractors. The team provides the engineering expertise to evaluate/support industry designs and technology demonstrations of new system concepts and mission systems in order to reduce risk on components and subsystems.</p>				

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**B. Accomplishments/Planned Program**

	FY 05	FY 06	FY 07	
<b>LCS Seaframe Development &amp; Design</b>	83.000	0.000	0.000	
RDT&E Articles Quantity				

**LCS Seaframe Development & Design**  
 Completed: Preliminary Design for Flight 0. Awarded two contracts for Flight 0 Final System Design with an option for Detail Design and Construction.  
 FY 05- Continued Final System Design for Flight 0

	FY 05	FY 06	FY 07	
<b>LCS Test &amp; Evaluation</b>	6.000	12.100	13.000	
RDT&E Articles Quantity				

**LCS Test & Evaluation**  
 Continue LCS Test and Evaluation management to include TEMP, LFT&E management plan. Begin planning for Flight 0 test events.  
 Completed: Test & Evaluation (T&E) strategy. Developed updated T&E strategy and draft Test & Evaluation Master Plan (TEMP) to reflect contract award. Began planning for developmental testing (DT) and early operational assessment (EOA)  
 FY05 - Began EOA for Flight 0 Ship 1. Continued Engineering Testing /Development Testing (ET/DT).  
 FY06 - Begin DT assistance. Begin component and system shock testing. Continue modeling and simulation (M&S) and surrogate testing.  
 FY07 - Begin LCS ordnance T&E

	FY 05	FY 06	FY 07	
<b>LCS Mission Module Development &amp; Procurement</b>	89.547	0.000	0.000	
RDT&E Articles Quantity				

**Mission Module Development & Procurement is funded in core Project 3129 FY06 and follow.**  
 Mission capabilities in littoral mine warfare, small boat neutralization and littoral anti-submarine warfare to enable the US Joint Force to operate in the littoral. Mission systems development includes architectures, interfaces and development of mission systems. Mission systems development also includes the procurement of the mission packages to be used on the Flight 0 ships.  
 Mine Warfare Mission Package (MIW) 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 for 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. Additionally, LCS should have the capability to deploy distributed sensors that will enhance detection, classification, identification and targeting of enemy mines.  
 Littoral Anti-Submarine Warfare Mission Package (ASW) 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.  
 Littoral Surface Warfare Mission Package (SUW) will provide the capability to detect, track and engage small boat threats, giving the joint force commander the ability to maximize striking power or successfully move through a restricted area.  
 FY 05 - Continued technology development and demonstration activities. Continued mission system zone and module development and integration, to include the following; MIW, ASW and SUW Mission Module Development, Procurement, Integration, & Testing (funds Navy participation in Joint Advanced Concept Technology Demonstration (ACTD) (SPARTAN mission module package). Flight 0 Mission systems for each mission area identified, funding itemized, development and procurement plan in execution.

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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>	PROGRAM ELEMENT NUMBER AND NAME 0603581N - Littoral Combat Ship	PROJECT NUMBER AND NAME 3096 - LCS Development

**C. PROGRAM CHANGE SUMMARY:**

Funding:	FY 2005	FY 2006	FY 2007
FY2006 President's Budget	224.156	117.310	130.834
FY2007 President's Budget	228.034	85.955	57.067
Total Adjustments	3.878	-31.355	-73.767
(U) Summary of Adjustments			
Other general provisions	-5.335	-0.442	-0.485
Programmatic Changes	9.213	-30.000	-73.071
Rescissions		-0.913	
Inflation			0.257
Warfare Center Rates			-0.468
Total	3.878	-31.355	-73.767

Schedule:

See Individual Projects

Technical:

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<b>D. OTHER PROGRAM FUNDING SUMMARY:</b>									
<u>Line Item No. &amp; Name</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
BLI 160000 (OPN)	0.000	40.124	79.059	207.618	652.316	656.246	720.173	CONT	CONT
BLI 212700 (SCN)	0.000	440.000	520.670	947.644	1764.290	1774.231	1825.445	CONT	CONT
BLI 422100 (WPN)	0.000	0.000	0.000	12.451	39.117	91.022	134.212	CONT	CONT
BLI 4223 (APN)	0.000	0.000	37.570	64.501	104.866	100.383	94.133	CONT	CONT
<b>E. ACQUISITION STRATEGY:</b>									
(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.									
<b>F. MAJOR PERFORMERS:</b>									
General Dynamics - Bath Iron Works									
Lockheed Martin									

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Exhibit R-3 Cost Analysis (page 1)										DATE: <b>Feb 2006</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDT&E, N / BA-4			PE 0603581N - Littoral Combat Ship			3096 - LCS Development								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY's Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Preliminary Design (Flight 0)	Compet	LM, BIW, RAYTHEON	30.686									CONT	CONT	
Final Design (Flight 0)	Compet	LM, BIW	50.479	83.000	1QFY05							CONT	CONT	
Mission Sys Dev	Various	Various	45.985	89.547	Various							CONT	CONT	
													CONT	
													CONT	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
<b>Subtotal Product Development</b>			127.150	172.547		0.000		0.000				CONT	CONT	
Remarks:														
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
<b>Subtotal Support</b>			0.000	0.000		0.000		0.000				0.000	0.000	
Remarks:														

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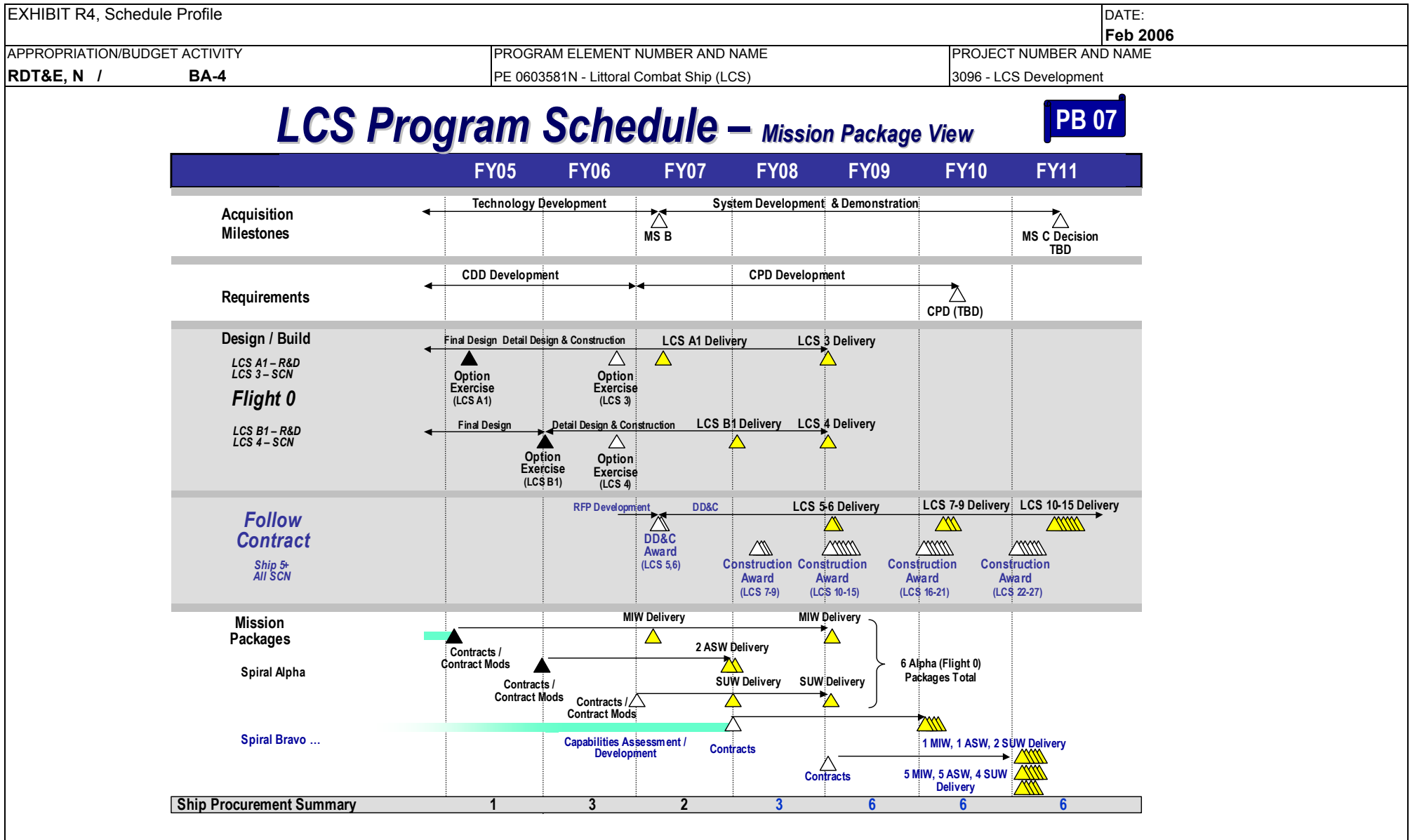
CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: <b>Feb-06</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDT&E, N / BA-4			PE 0603581N - Littoral Combat Ship			3096 - LCS Development								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WX	NSWC/CD Bethesda, MD	3.000	1.500	1QFY05	4.000	1QFY06	4.500	1QFY07			CONT	CONT	
Developmental Test & Evaluation	WX	NSWC/DD, Dahlgren, VA	2.000	1.500	1QFY05	4.000	1QFY06	4.500	1QFY07			CONT	CONT	
Developmental Test & Evaluation	Various	Various	3.000	3.000	1QFY05	4.100	1QFY06	4.000	1QFY07			CONT	CONT	
<b>Subtotal T&amp;E</b>			8.000	6.000		12.100		13.000				0.000	CONT	
Remarks:														
Contractor Engineering Support	Seaport	ANTEON, Arlington, VA	6.648	3.500	1QFY05	9.200	1QFY06					CONT	CONT	
	Seaport	Various	5.957	6.000	1QFY05	4.000	1QFY06					CONT	CONT	
	Comp					0.000	N/A	9.800	1QFY07					
Government Engineering Support	WX	NSWC/CD, Bethesda, MD	8.745	8.026	1QFY05	16.655	1QFY06	6.500	1QFY07			CONT	CONT	
	WX	NSWC/DD, Dahlgren, VA	11.843	8.000	1QFY05	6.000	1QFY06	6.000	1QFY07			CONT	CONT	
	WX	NSWC/PC, Panama City, FL	6.859	5.500	1QFY05	9.500	1QFY06	3.267	1QFY07			CONT	CONT	
	WX	NSWC/PHD, Port Hueneme,	0.000	2.050	1QFY05	3.500	1QFY06	1.000						
	Various	Government Activities	3.162	3.950	1QFY05	5.000	1QFY06	5.000	1QFY07			CONT	CONT	
	WX	NUWC, Newport, RI	2.858	3.369	1QFY05	2.000	1QFY06	2.500	1QFY07			CONT	CONT	
	WX	SPAWAR, San Diego, CA	3.325	4.000	1QFY05	4.000	1QFY06	3.000	1QFY076			CONT	CONT	
	WX	NSWC Div Crane	0.625			0.500	1QFY06							
	WX	NAWC AD, Pax River	2.800			5.000	1QFY06	2.000	1QFY07					
Program Management Support	Various	Various	4.765	4.580	1QFY05	6.000	1QFY06	4.000	1QFY07			CONT	CONT	
Labor (Research Personnel)	CPFF	APL/JHU Laurel MD	0.820	0.312	1QFY05	2.000	1QFY06	0.500	1QFY07			CONT	CONT	
Travel	Various	NAVSEA	0.081	0.200	1QFY05	0.500	1QFY06	0.500	1QFY07					
<b>Subtotal Management</b>			58.488	49.487		73.855		44.067				CONT	CONT	
Remarks:														
Total Cost			193.638	228.034		85.955		57.067		0.000		0.000	CONT	
Remarks:														



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Exhibit R-2, RDTEN Budget Item Justification  
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**Exhibit R-2, RD TEN Budget Item Justification**  
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EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2006</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>	PROGRAM ELEMENT NUMBER AND NAME 0603581N - Littoral Combat Ship (LCS)				PROJECT NUMBER AND NAME 3129 - LCS Mission Package Development			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.000	0.000	206.757	162.339	90.439	82.536	100.127	40.814
RDT&E Articles Qty			3	1				

### A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Mission capabilities in littoral mine warfare, small boat neutralization and littoral anti-submarine warfare to enable the US Joint Force to operate in the littoral. Mission systems development includes architectures, interfaces and development of mission systems. Mission systems development also includes the procurement of the mission packages to be used on the Flight 0 ships.

Mine Warfare Mission Package (MIW) 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 for 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. Additionally, LCS should have the capability to deploy distributed sensors that will enhance detection, classification, identification and targeting of enemy mines.

Littoral Anti-Submarine Warfare Mission Package (ASW) 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.

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<b>B. Accomplishments/Planned Program</b>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">MIW Mission Module Package</th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> <th style="width: 15%;">FY 06</th> <th style="width: 15%;">FY 07</th> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">29.203</td> <td style="text-align: center;">24.716</td> </tr> <tr> <td>RDT&amp;E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					MIW Mission Module Package	FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	0.000	0.000	29.203	24.716	RDT&E Articles Quantity				
MIW Mission Module Package	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	0.000	0.000	29.203	24.716															
RDT&E Articles Quantity																			
<p>FY06: Integration of Cobra with Fire Scout VTUAV &amp; LCS; Modifications to RMS (cradle design, capture spire, launch &amp; recovery); Development of ILS training plans for MIW mission package on LCS. USV integration, Mission Module design, test, and fabrication; Integration with LCS and certification, modeling and simulation in support of module design; Technical manual and other related ILS documentation development.</p> <p>FY07: Continuation of mission module test, integration &amp; certification; Mission module fabrication for Mission Package #2; HSI; ILS documentation development and updates; Mission Package training; Modeling &amp; Simulation; Training, certification; RMS installation, integration, testing, and training on LCS.</p>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">ASW Mission Module Package</th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> <th style="width: 15%;">FY 06</th> <th style="width: 15%;">FY 07</th> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">97.112</td> <td style="text-align: center;">43.244</td> </tr> <tr> <td>RDT&amp;E Articles Quantity</td> <td></td> <td></td> <td style="text-align: center;">2</td> <td></td> </tr> </table>					ASW Mission Module Package	FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	0.000	0.000	97.112	43.244	RDT&E Articles Quantity			2	
ASW Mission Module Package	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	0.000	0.000	97.112	43.244															
RDT&E Articles Quantity			2																
<p>FY06: Continuation of the development, integration, and testing of USV bi-static mission module includes UTAS and MSOBS mission systems; Continuation of the development, integration, and testing of the RTA &amp; RTAS mission systems; Continuation of the integration of the dipping sonar onto the USV; USV w/dipper testing; Mission module cradle development and cradle integration with the mission modules; Procure 2 ASW MPs (\$56.400).</p> <p>FY07: Continuation of the development, integration, and testing of USV bi-static mission module includes UTAS and MSOBS mission systems; Continuation of the development, integration, and testing of the RTA &amp; RTAS mission systems; Continuation of the integration of the dipping sonar onto the USV; USV w/dipper testing; At Sea Array tow characteristics test.</p>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">SUW Mission Modules Package</th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> <th style="width: 15%;">FY 06</th> <th style="width: 15%;">FY 07</th> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">0.000</td> <td></td> <td style="text-align: center;">48.406</td> <td style="text-align: center;">47.806</td> </tr> <tr> <td>RDT&amp;E Articles Quantity</td> <td></td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> </tr> </table>					SUW Mission Modules Package	FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	0.000		48.406	47.806	RDT&E Articles Quantity			1	1
SUW Mission Modules Package	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	0.000		48.406	47.806															
RDT&E Articles Quantity			1	1															
<p>FY06: Perform design, develop, test, evaluation, integration, certification with NLOS-LS, 30 MM gun module systems; Conduct the development &amp; design of the SUW C2 system; Coordinate with the MH-60 and VTUAV systems to support SUW; MPI effort; Procure 1 NLOS-LS (Netfires) system and 1 Med Cal Gun module (\$9.000).</p> <p>FY07: Conduct certification efforts; Final safety approach; Develop training/maintenance manuals; Provide prototype HW/SW to support certification efforts; Procures one (1) SUW package (\$9.180); Procure NLOS (Netfires) Missiles for testing (\$11.724).</p>																			

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Exhibit R-2, RD TEN Budget Item Justification  
(Exhibit R-2, page 12 of 30)

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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>	PROGRAM ELEMENT NUMBER AND NAME 0603581N - Littoral Combat Ship (LCS)	PROJECT NUMBER AND NAME 3129 - LCS Mission Package Development																	
<b>B. Accomplishments/Planned Program</b>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%; padding: 5px;"><b>Common Mission Module Development</b></td><td style="width: 15%; padding: 5px;">FY 04</td><td style="width: 15%; padding: 5px;">FY 05</td><td style="width: 15%; padding: 5px;">FY 06</td><td style="width: 15%; padding: 5px;">FY 07</td></tr><tr><td style="padding: 5px;">Accomplishments/Effort/Subtotal Cost</td><td style="text-align: center; padding: 5px;">0.000</td><td style="text-align: center; padding: 5px;">0.000</td><td style="text-align: center; padding: 5px;">32.036</td><td style="text-align: center; padding: 5px;">46.573</td></tr><tr><td style="padding: 5px;">RDT&amp;E Articles Quantity</td><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;"></td></tr></table>					<b>Common Mission Module Development</b>	FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	0.000	0.000	32.036	46.573	RDT&E Articles Quantity				
<b>Common Mission Module Development</b>	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	0.000	0.000	32.036	46.573															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px; min-height: 100px;"><p>FY06: begin ACP integration into VTUAV; Complete C2 build 1 MIW integration; Acquire MPCE 1 &amp; 2 and ILS plan; Flight 1 interface Mod Dev/Integration; Funds transition of Joint Advanced Concept Technology Demonstration program (SPARTAN); MPI efforts (MIW, ASW, SUW, C2).</p><p>FY07: Installation of the MPCE build 1 to ship; Completion of C2 build 1.1 for MIW; Fire Scout integration and Rehosting Fire Scout TCS S/W in LCS; ACP development for VTUAV; continuing MPI efforts (MIW, ASW, SUW, C2).</p></div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%; padding: 5px;"></td><td style="width: 15%; padding: 5px;">FY 04</td><td style="width: 15%; padding: 5px;">FY 05</td><td style="width: 15%; padding: 5px;">FY 06</td><td style="width: 15%; padding: 5px;">FY 07</td></tr><tr><td style="padding: 5px;">Accomplishments/Effort/Subtotal Cost</td><td style="text-align: center; padding: 5px;">0.000</td><td style="text-align: center; padding: 5px;">0.000</td><td style="text-align: center; padding: 5px;">0.000</td><td style="text-align: center; padding: 5px;">0.000</td></tr><tr><td style="padding: 5px;">RDT&amp;E Articles Quantity</td><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;"></td></tr></table>						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	0.000	RDT&E Articles Quantity				
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	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost																			
RDT&E Articles Quantity																			

R-1 SHOPPING LIST - Item No.

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UNCLASSIFIED

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:	<b>February 2006</b>
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
<b>RDT&amp;E, N / BA-4</b>	0603581N - Littoral Combat Ship	3129 - LCS Mission Package Development	
<b>C. PROGRAM CHANGE SUMMARY:</b>			
Funding:	FY 2005	FY 2006	FY 2007
FY2006 President's Budget	0.000	209.908	131.578
FY2007 President's Budget	0.000	206.757	162.339
Total Adjustments	0.000	-3.151	30.761
(U) Summary of Adjustments			
Other General Provisions		-0.956	-0.334
Warfare Center Rates			-0.936
Inflation			0.723
Rescissions		-2.195	
Programmatic Changes			31.308
Total	0.000	-3.151	30.761
Schedule:			
See R-4 for breakout.			
Technical:			
TBD			

R-1 SHOPPING LIST - 53

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification  
(Exhibit R-2, page 14 of 30)

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2006</b>																																																				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>		PROGRAM ELEMENT NUMBER AND NAME PE 0603581N- Littoral Combat Ship (LCS)			PROJECT NUMBER AND NAME 3129 - LCS Mission Package Development																																																						
<p><b>D. OTHER PROGRAM FUNDING SUMMARY:</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Line Item No. &amp; Name</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2005</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2006</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2007</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2008</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2009</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2010</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2011</th> <th style="text-align: right; border-bottom: 1px solid black;">To Complete</th> <th style="text-align: right; border-bottom: 1px solid black;">Total Cost</th> </tr> </thead> <tbody> <tr> <td>BLI 160000 (OPN)</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">40.124</td> <td style="text-align: right;">79.059</td> <td style="text-align: right;">207.618</td> <td style="text-align: right;">652.316</td> <td style="text-align: right;">656.246</td> <td style="text-align: right;">720.173</td> <td style="text-align: right;">CONT</td> <td style="text-align: right;">CONT</td> </tr> <tr> <td>BLI 212700 (SCN)</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">440.000</td> <td style="text-align: right;">520.670</td> <td style="text-align: right;">947.644</td> <td style="text-align: right;">1764.290</td> <td style="text-align: right;">1774.231</td> <td style="text-align: right;">1825.445</td> <td style="text-align: right;">CONT</td> <td style="text-align: right;">CONT</td> </tr> <tr> <td>BLI 422100 (WPN)</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">12.451</td> <td style="text-align: right;">39.117</td> <td style="text-align: right;">91.022</td> <td style="text-align: right;">134.212</td> <td style="text-align: right;">CONT</td> <td style="text-align: right;">CONT</td> </tr> <tr> <td>BLI 4223 (APN)</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">37.570</td> <td style="text-align: right;">64.501</td> <td style="text-align: right;">104.866</td> <td style="text-align: right;">100.383</td> <td style="text-align: right;">94.133</td> <td style="text-align: right;">CONT</td> <td style="text-align: right;">CONT</td> </tr> </tbody> </table> <p style="margin-top: 20px;"><b>E. ACQUISITION STRATEGY:</b></p> <p>((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.</p> <p style="margin-top: 20px;"><b>F. MAJOR PERFORMERS:</b></p> <p>N/A</p>										Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost	BLI 160000 (OPN)	0.000	40.124	79.059	207.618	652.316	656.246	720.173	CONT	CONT	BLI 212700 (SCN)	0.000	440.000	520.670	947.644	1764.290	1774.231	1825.445	CONT	CONT	BLI 422100 (WPN)	0.000	0.000	0.000	12.451	39.117	91.022	134.212	CONT	CONT	BLI 4223 (APN)	0.000	0.000	37.570	64.501	104.866	100.383	94.133	CONT	CONT
Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost																																																		
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BLI 422100 (WPN)	0.000	0.000	0.000	12.451	39.117	91.022	134.212	CONT	CONT																																																		
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R-1 SHOPPING LIST - Item No. 53

UNCLASSIFIED

# UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)						DATE: <b>February 2006</b>						
APPROPRIATION/BUDGET ACTIVITY <b>RDTE&amp;E, N / BA-4</b>			PROGRAM ELEMENT PE 0603581N - Littoral Combat Ship		PROJECT NUMBER AND NAME 3129 - LCS Mission Package Development - MIW							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
MIW Mission Module Development and integration	WX	Various				24.203	10/05	17.716	10/06	Continuing	Continuing	
Modularization	Various	Various				5.000	10/05	5.000	10/06	Continuing	Continuing	
Equipment and Hardware												
Subtotal Product Development						29.203		22.716		Continuing	Continuing	
Remarks:												
T&E	WX	Various						2.000	10/06	Continuing	Continuing	
						0.000		2.000		Continuing	Continuing	
Remarks:												



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Exhibit R-3 Cost Analysis (page 1)						DATE: <b>February 2006</b>						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT		PROJECT NUMBER AND NAME							
<b>RDT&amp;E, N / BA-4</b>			PE 0603581N - Littoral Combat Ship		3129 - LCS Mission Package Development - ASW							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
ASW Mission Module Development and integration	WX	Various				40.712	10/05	34.244	10/06	Continuing	Continuing	
Modularization	Various	Various				5.000	10/05	7.000	10/06	Continuing	Continuing	
Equipment and Hardware												
- ASW Module	C/FP	Unknown				14.000	12/05				14.000	N/A
- USV	C/FP	LHM, Syracuse				10.400	12/05				10.400	N/A
- Towed Array	C/FP	LHM, Syracuse				10.000	03/06				20.000	N/A
- Distrubuted Expendable System	C/FP	Unknown				17.000	12/05				17.000	N/A
Subtotal Product Development						97.112		41.244		Continuing	Continuing	
Remarks:												
T&E	WX	Various				0.000	10/05	2.000	10/06	Continuing	Continuing	
Subtotal Support						0.000		2.000				
Remarks:												

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)						DATE: <b>February 2006</b>						
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>			PROGRAM ELEMENT PE 0603581N - Littoral Combat Ship		PROJECT NUMBER AND NAME 3129 - LCS Mission Package Development - SUW							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
SUW Mission Module Development												
and integration	WX	Various				34.086	10/05	20.365	10/06	Continuing	Continuing	
Modularization	Various	Various				3.120	10/05	4.919	10/06	Continuing	Continuing	
Equipment and Hardawre												
- NLOS-LS (NetFires)	FFP	Raytheon, AZ				3.500	12/05	3.570	12/06		#REF!	N/A
- Med Cal Gun Module	FFP	ATK, MD				5.500	12/05	5.610	12/06		#REF!	N/A
- NLOS (Netfires) Missiles for Shipfill &Te	FFP	Raytheon, AZ						10.442	12/06	9.959	#REF!	N/A
Subtotal Product Development						46.206		44.906		Continuing	Continuing	
Remarks:												
T&E	WX	Various				2.200	10/05	2.900	10/06	Continuing	Continuing	
Subtotal Product Development						2.200		2.900		Continuing	Continuing	
Remarks:												

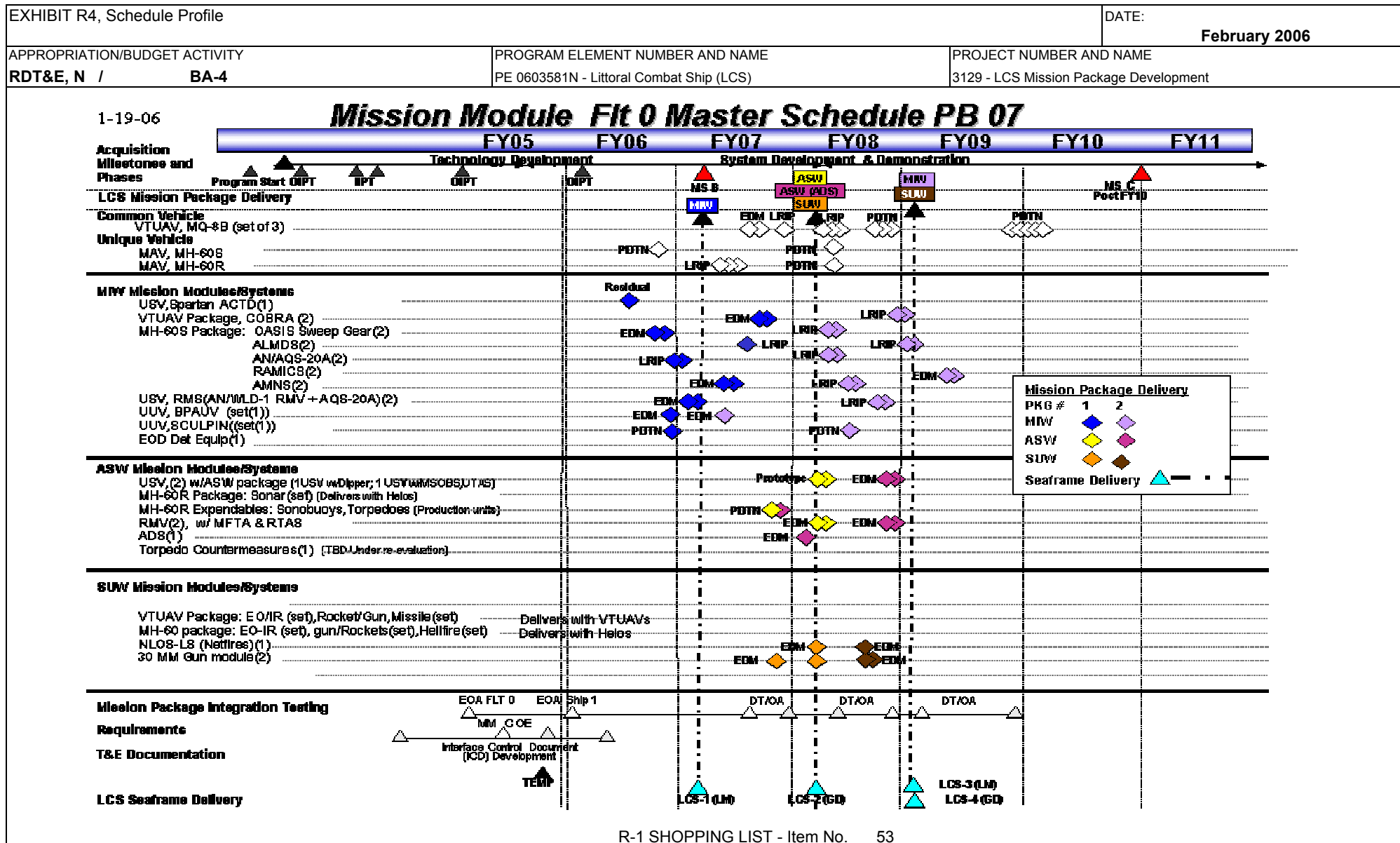
# UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)						DATE: <b>February 2006</b>						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT		PROJECT NUMBER AND NAME							
<b>RDT&amp;E, N / BA-4</b>			PE 0603581N - Littoral Combat Ship		3129 - LCS Mission Package Development - Common							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Common Module Development and integration												
- FIRESOOUT (Integration & TSC S	Various	Various				2.000	10/05	6.257	10/06	Continuing	Continuing	
- MH60R	Various	Various				0.000	10/05	0.000	10/06	Continuing	Continuing	
- Airborne Comm Package	Various	Various				4.849	10/05	6.865	10/06	Continuing	Continuing	
- Common Vehicle	Various	Various				2.000	10/05	8.917	10/06	Continuing	Continuing	
- Common C2	Various	Various				16.000	10/05	13.097	10/06	Continuing	Continuing	
Modular Development	CPAF	Northrop Grumman-Bethpage, NY				5.000	01/06	9.653	10/06	Continuing	Continuing	
Subtotal Development & Integration						29.849		44.789		Continuing	Continuing	
Remarks:												
Program Management Support	Various	Various				2.132	10/05	1.730	10/06	Continuing	Continuing	
Travel		NAVSEA				0.055	10/05	0.054	10/06	Continuing	Continuing	
Subtotal Management						2.187		1.784		Continuing	Continuing	
Remarks:												
Mission Package Total Cost						206.757		162.339		Continuing	Continuing	
Remarks:												

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R-1 SHOPPING LIST - Item No. 53

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Exhibit R-2, RDTEN Budget Item Justification  
(Exhibit R-2, page 20 of 30)

**UNCLASSIFIED**

**CLASSIFICATION:**

[illegible]

CLASSIFICATION:

**UNCLASSIFIED**

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>Feb 2006</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>	PROGRAM ELEMENT NUMBER AND NAME PE 0603581N - Littoral Combat Ship				PROJECT NUMBER AND NAME 4018 - Littoral Combat Ship Construction		
COST (\$ in Millions)	2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	222.749	275.045	100.265	36.802	7.087	0.000	0.000
RDT&E Articles Qty							

**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:**

This project funds the detail design and construction of two RDT&E LCS Flight 0 ships and associated Outfitting & Post Delivery.

Breakout of RDT&E ship end cost are shown below.

	<u>LCS A1</u>	<u>LCS B1</u>
Basic Construction (\$M)	\$252,000	\$256,000
Change Orders (\$M)	\$5,000	\$10,000
Other (ILS, Sys Eng., Test/Trials) (\$M)	\$5,000	\$5,000
Other GFE (\$M)	<u>\$12,476</u>	<u>\$7,139</u>
	\$274,476	\$278,139

R-1 SHOPPING LIST - Item No.

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**UNCLASSIFIED**

**Exhibit R-2, RDTE Budget Item Justification**  
(Exhibit R-2, page 22 of 30)

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>Feb 2006</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA 4</b>	PROGRAM ELEMENT NUMBER AND NAME PE 0603581N - Littoral Combat Ship (LCS)	PROJECT NUMBER AND NAME 4018 - Littoral Combat Ship Construction	

### B. Accomplishments/Planned Program

<b>LCS Seaframe Construction</b>	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	206.749	266.339	63.527	
RDT&E Articles Quantity				

FY05 - FY07 Detail design and construction funding for Lockheed Martin LCS A1.  
FY06 - FY07 Detail design and construction funding for General Dynamics LCS B1.  
FY05-06 Continue detailed production planning for LCS to include: development of purchase specifications/drawings for all the significant equipment, begin initial competition and selection of components, issue contracts and begin production of components. Begin logistics support analysis and develop crew training. Design fixtures and jigs to facilitate construction. Begin production design for early work packages to include work instructions, schedules, work locations, material list, tooling, facilities and manpower. requirements.

<b>LCS Outfitting &amp; Post Delivery</b>	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost		8.706	36.738	
RDT&E Articles Quantity				

FY06 - LCS A1Outfitting funding is required for spare parts, medical and dental supplies, pre-commission crew support, and crew move aboard.  
FY07 - LCS A1/B1 Outfitting funding is required for spare parts, medical and dental supplies, pre-commission crew support, and crew move aboard. Post Delivery funding is required for Developmental Testing, Combat System Ship Qualification Test (CSSQT), test and trials, Mission Package interface testing, correction of deficiencies, and Live Fire Test & Evaluation (LFT&E).

<b>LCS Seaframe Long Lead Material</b>	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	16.000			
RDT&E Articles Quantity				

FY 05 - Funded procurement of long lead items in advance of contract award for LCS B1.

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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>Feb 2006</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>	PROGRAM ELEMENT NUMBER AND NAME 0603581N - Littoral Combat Ship (LCS)	PROJECT NUMBER AND NAME 4018 - Littoral Combat Ship Construction	

**C. PROGRAM CHANGE SUMMARY:**

(U) Funding:	FY 2005	FY 2006	FY 2007
FY2006 President's Budget	228.455	249.236	36.738
FY2007 President's Budget	222.749	275.045	100.265
Total Adjustments	-5.706	25.809	63.527

(U) Summary of Adjustments

Other general provisions	-5.706	-1.271	-0.015
Rescissions		-2.920	
Warfare Center Rates			-0.001
Programmatic Changes		30.000	63.100
Inflation			0.443
Total Adjustments	-5.706	25.809	63.527

Schedule:

Not Applicable

Technical:

Not Applicable



# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>Feb 2006</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>		PROGRAM ELEMENT NUMBER AND NAME PE 0603581N - Littoral Combat Ship (LCS)			PROJECT NUMBER AND NAME 4018 - Littoral Combat Ship Construction			

**D. OTHER PROGRAM FUNDING SUMMARY:**

<u>Line Item No. &amp; Name</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
BLI 160000 (OPN)	0.000	40.124	79.059	207.618	652.316	656.246	720.173	CONT	CONT
BLI 212700 (SCN)	0.000	440.000	520.670	947.644	1764.290	1774.231	1825.445	CONT	CONT
BLI 422100 (WPN)	0.000	0.000	0.000	12.451	39.117	91.022	134.212	CONT	CONT
BLI 4223 (APN)	0.000	0.000	37.570	64.501	104.866	100.383	94.133	CONT	CONT

**E. 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.

**F. MAJOR PERFORMERS:**

General Dynamics - Bath Iron Works  
Lockheed Martin

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# UNCLASSIFIED

## CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: <b>Feb 2006</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
<b>RD&amp;E, N / BA-4</b>			PE 0603581N - Littoral Combat Ship (LCS)			4018 - Littoral Combat Ship Construction								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date			Cost to Complete	Total Cost	Target Value of Contract
LCS A1 Construction	Comp	Lockheed Martin	0.000	206.749	2QFY05	59.200		8.527				Continuing	Continuing	
Long Lead Material LCS B1	Comp	General Dynamics		16.000								Continuing	Continuing	
LCS B1 Construction	Comp	General Dynamics				207.139	1QFY06	55.000				Continuing	Continuing	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal Product Development			0.000	222.749		266.339		63.527				0.000	552.615	
Initial Outfitting & Post Delivery	Various	TBD				8.706	4QFY06	36.738	2QFY07			Continuing	Continuing	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
			0.000	0.000		8.706		36.738				0.000	45.444	
Remarks:														

# UNCLASSIFIED

## CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)											DATE: <b>Feb 2006</b>			
APPROPRIATION/BUDGET ACTIVITY <b>RDTE&amp;E, N / BA-4</b>			PROGRAM ELEMENT PE 0603581N - Littoral Combat Ship (LCS)				PROJECT NUMBER AND NAME 4018 - Littoral Combat Ship Construction							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation														
Subtotal T&E														
Remarks:														
Government Engineering Support														
Government Engineering Support														
Program Management Support														
Travel														
Labor (Research Personnel)														
SBIR Assessment														
Subtotal Management														
Remarks:														
Total Cost			0.000	222.749		275.045		100.265				Continuing	Continuing	
Remarks:														

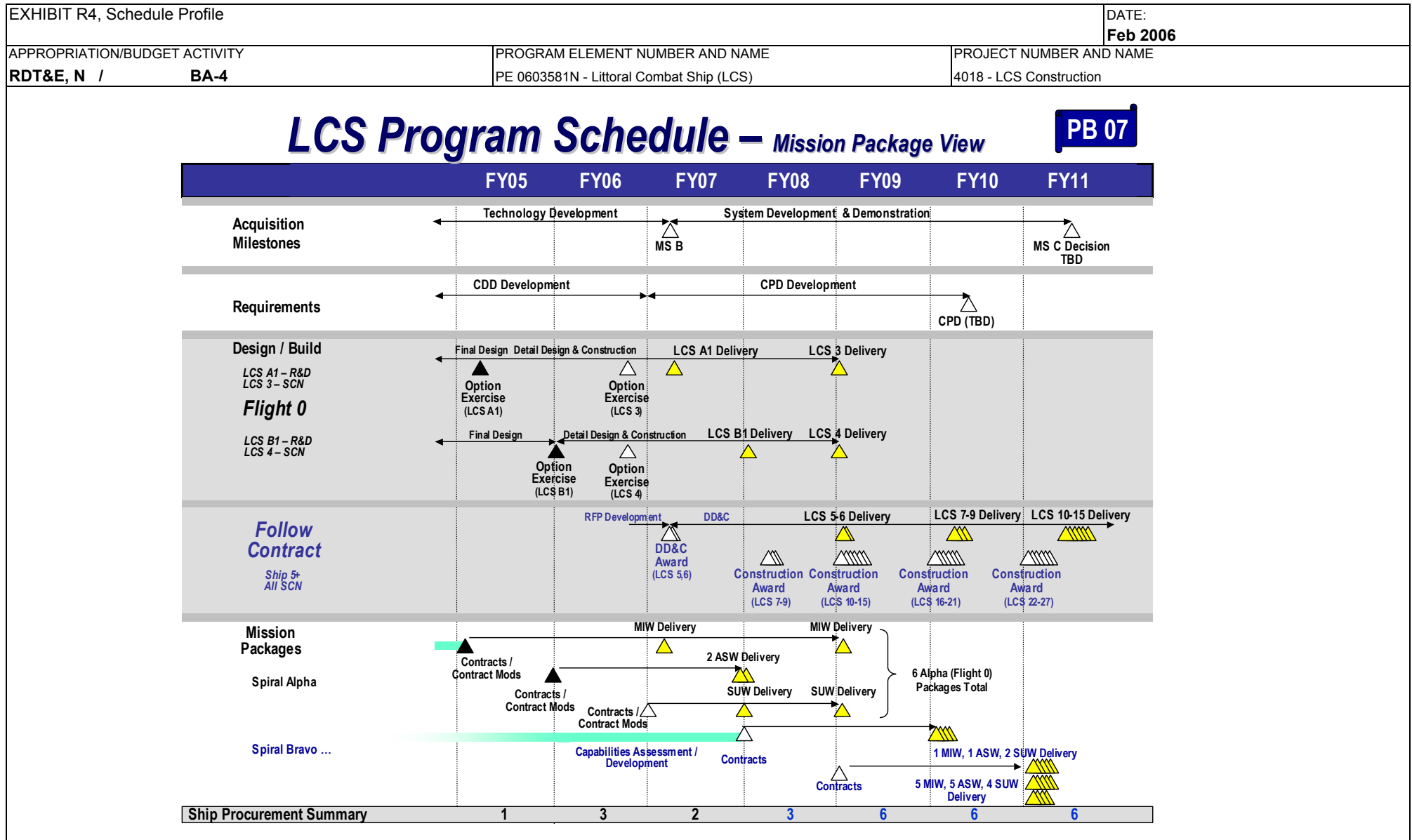
R-1 SHOPPING LIST - Item No. 53

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Exhibit R-2, RDTE&E Budget Item Justification  
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CLASSIFICATION:



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## CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: <b>Feb-06</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, BA-4</b>	PROGRAM ELEMENT PE 0603581N - Littoral Combat Ship				PROJECT NUMBER AND NAME 4018 - LCS Development		
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Final Design (Flight 0)	1Q-4Q						
Detail Design and Construction (Flight 0)	2Q-4Q	1Q-4Q	1Q-4Q	1Q			
Mission System Development & Platform Exp	1Q-4Q	1Q-4Q	1Q-4Q				
Construction - SCN Funded		4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Milestone B			2Q				
Milestone C							2Q
Ship A1 Delivery (Flight 0) - RDT&E Funded			2Q				
Ship B1 Delivery (Flight 0) - RDT&E Funded				1Q			
Ship 3 Delivery - SCN Funded				4Q			
Ship 4 Delivery - SCN Funded				4Q			
NOTE:							
Developmental Testing	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q	
Operational Testing	2Q	2Q	2Q-4Q	2Q-4Q		2Q-4Q	
Engineering Events - TBD							

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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2006</b>																
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-4</b>	PROGRAM ELEMENT NUMBER AND NAME PE 0603581N - Littoral Combat Ship	PROJECT NUMBER AND NAME 9999-Congressional Plus-Ups: VARIOUS																	
<b>CONGRESSIONAL PLUS-UPS:</b>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;"></td><td style="width: 10%; text-align: center;">FY 06</td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td></tr><tr><td>9820N</td><td></td><td></td><td></td><td></td></tr><tr><td>ASW Multistatic Sensor Mission Planning Upgrade</td><td style="text-align: center;">1.0</td><td></td><td></td><td></td></tr></table>						FY 06				9820N					ASW Multistatic Sensor Mission Planning Upgrade	1.0			
	FY 06																		
9820N																			
ASW Multistatic Sensor Mission Planning Upgrade	1.0																		
<div style="border: 1px solid black; padding: 5px; min-height: 60px;">The LCS ASW Mission Package (MP) will include common capabilities for use with pre-deployment planning, in situ performance estimates and in situ replanning for all ASW Mission Modules. The LCS ASW MP shall support mission planning for Low Frequency Bi-static/multi-static Systems deployed from USVs. The LCS ASW MP common capabilities will be derived from legacy PORs that have been developed for the surface ship, surveillance and submarine programs.</div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;"></td><td style="width: 10%; text-align: center;">FY 06</td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td></tr><tr><td>9821N</td><td></td><td></td><td></td><td></td></tr><tr><td>Remote Operation of Active Sonar Technology</td><td style="text-align: center;">3.0</td><td></td><td></td><td></td></tr></table>						FY 06				9821N					Remote Operation of Active Sonar Technology	3.0			
	FY 06																		
9821N																			
Remote Operation of Active Sonar Technology	3.0																		
<div style="border: 1px solid black; padding: 5px; min-height: 60px;">The ASW MP shall 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</div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;"></td><td style="width: 10%; text-align: center;">FY 06</td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td></tr><tr><td>9822N</td><td></td><td></td><td></td><td></td></tr><tr><td>Unmanned Surface Vehicle Concepts &amp; Technology</td><td style="text-align: center;">2.2</td><td></td><td></td><td></td></tr></table>						FY 06				9822N					Unmanned Surface Vehicle Concepts & Technology	2.2			
	FY 06																		
9822N																			
Unmanned Surface Vehicle Concepts & Technology	2.2																		
<div style="border: 1px solid black; padding: 5px; min-height: 60px;">Initiate common USV program transition, concept development, and integration for LCS. This concept focuses 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 will provide:<ul style="list-style-type: none"><li>· Systems engineering and modeling and simulation (M&amp;S) tools to support USV system module development and budget decisions</li><li>· Assessment of operational performance versus cost, programmed capabilities, engineering concepts/designs</li><li>· Risk analyses of operational concepts, and combination of USV systems and Sensor technology.</li></ul></div>																			

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