

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA-5					R-1 ITEM NOMENCLATURE Ship Contract Design/Live Fire T&E PE 0604567N			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	114.654	118.519	55.672	86.506	83.826	59.393	40.082	87.499
2301 / CVN-77 Design	20.520	0.010	0.000	0.000	0.000	0.000	0.000	0.000
4007 / CVN 21 LFT&E	8.657	8.490	7.533	7.576	7.473	8.480	7.639	3.550
4008 / CVN 21 Total Ship Integration	22.691	62.600	9.721	22.204	6.918	0.000	0.000	0.000
3108 / CVN (X) Total Ship Integration	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.882
1803 / Ship Contract Design	1.731	1.696	11.538	6.465	4.723	4.753	4.753	4.716
2198 / Life Fire Test and Evaluation	4.213	0.000	2.745	1.563	0.000	0.000	0.000	0.000
S2465/LHA Replacement Flight 0	53.572	43.753	22.194	46.451	32.657	15.781	12.001	18.254
9389 LHD 8 Performance Based Logistics (PBL)	1.347	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9390 UNOLS Research Vessel*	1.923	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9578 / Integrated Modernization Environment	0.000	1.970	0.000	0.000	0.000	0.000	0.000	0.000
3133 Sea Base to Shore Connector	0.000	0.000	0.000	0.000	18.156	22.395	8.816	1.719
3134 Intratheater Connectors (Contract Design)	0.000	0.000	1.941	2.247	13.899	7.984	6.873	1.378
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This Program Element (PE) directly supports the Navy's Shipbuilding Plan by providing for the development of engineering, programmatic and acquisition documentation including ship specifications (including performance specifications) and contractual documentation associated with acquisition of Navy ships. This PE also supports the Congressionally mandated Live Fire Test and Evaluation program for new ship designs. Contract Design has traditionally been the engineering development of the technical and contractual definition of the ship design (including ship specifications and drawings) to a level of detail sufficient for shipbuilders to make a sound estimate of the construction cost and schedule. Additionally, the contract design package developed under this PE has provided the technical baseline from which the Navy selects the shipbuilder who then develops the detail design package required to support the construction and eventual delivery of the ship. This PE also supports the development of design methodologies/tools which facilitate and optimize the transition from ship design documents to efficient production of new ships and ship conversions, and supports engineering planning and ship affordability studies. Under Acquisition Reform for new design ships, traditional distinct phasing of the design process has been replaced with a continuous concurrent engineering Integrated Product and Process Development (IPPD) process extending through and after contract award. This serves to maintain the focus of multi-discipline teams consisting of the government, shipbuilder, system programs, and suppliers. Government/Industry Integrated Product Team(s) (IPTs) will utilize the IPPD process to develop the design in an Integrated Product and Data Environment (IPDE). The design approach is part of an acquisition strategy that is based on commercial practices and incorporates a phased technical definition.								
* Funding in project 9390 applies to Office of Naval Research Program Element 0601153N.								

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E PE 0604567N				PROJECT NUMBER AND NAME CVN 77 Design 2301			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	20.520	0.010	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project encompasses CVN 77 design. For FY04 and earlier, the CVN 77 design approach was part of an acquisition strategy based on incorporating best available commercial practices and a phased technical definition. The CVN 77 research and development investment identified and validated transition technologies for incorporation into the CVN 77 design. The objectives of these technologies were to enhance warfighting capabilities, reduce shipboard workload and life cycle costs, provide benefits to the other nine ships of the NIMITZ class, and mitigate future risk for CVN 21. The pivotal investment area was transition technology insertion into, and the functional combining of, traditional Combat Systems; Command, Control, Computers and Communications, Intelligence, Surveillance and Reconnaissance (C4ISR); and aviation functions to achieve transition technology objectives. Technical insertion risk mitigation actions resulted in reverting back to a modified repeat of the CVN 76 design.

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 3 of 70)

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005																																														
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E PE 0604567N	PROJECT NUMBER AND NAME CVN 77 Design 2301																																															
<p>C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 35%;"></th> <th style="text-align: right; width: 15%;">FY 2004</th> <th style="text-align: right; width: 15%;">FY 2005</th> <th style="text-align: right; width: 15%;">FY 2006</th> <th style="text-align: right; width: 15%;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>Funding:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY05 President's Budget</td> <td style="text-align: right;">28.674</td> <td style="text-align: right;">25.495</td> <td style="text-align: right;">5.858</td> <td style="text-align: right;">0.733</td> </tr> <tr> <td>FY06 President's Budget</td> <td style="text-align: right;">20.520</td> <td style="text-align: right;">0.010</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-8.154</td> <td style="text-align: right; border-top: 1px solid black;">-25.485</td> <td style="text-align: right; border-top: 1px solid black;">-5.858</td> <td style="text-align: right; border-top: 1px solid black;">-0.733</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td>misc reductions</td> <td style="text-align: right;">-8.154</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">-0.004</td> <td style="text-align: right;">0.000</td> </tr> <tr> <td>Programmatic/Other realignment</td> <td></td> <td style="text-align: right;">-25.485</td> <td style="text-align: right;">-5.854</td> <td style="text-align: right;">-0.733</td> </tr> <tr> <td>Subtotal</td> <td style="text-align: right; border-top: 1px solid black;">-8.154</td> <td style="text-align: right; border-top: 1px solid black;">-25.485</td> <td style="text-align: right; border-top: 1px solid black;">-5.858</td> <td style="text-align: right; border-top: 1px solid black;">-0.733</td> </tr> </tbody> </table> <p style="margin-top: 20px;">Schedule:</p> <p>Not Applicable</p> <p style="margin-top: 20px;">Technical:</p> <p>Not Applicable.</p>						FY 2004	FY 2005	FY 2006	FY 2007	Funding:					FY05 President's Budget	28.674	25.495	5.858	0.733	FY06 President's Budget	20.520	0.010	0.000	0.000	Total Adjustments	-8.154	-25.485	-5.858	-0.733	Summary of Adjustments					misc reductions	-8.154	0.000	-0.004	0.000	Programmatic/Other realignment		-25.485	-5.854	-0.733	Subtotal	-8.154	-25.485	-5.858	-0.733
	FY 2004	FY 2005	FY 2006	FY 2007																																													
Funding:																																																	
FY05 President's Budget	28.674	25.495	5.858	0.733																																													
FY06 President's Budget	20.520	0.010	0.000	0.000																																													
Total Adjustments	-8.154	-25.485	-5.858	-0.733																																													
Summary of Adjustments																																																	
misc reductions	-8.154	0.000	-0.004	0.000																																													
Programmatic/Other realignment		-25.485	-5.854	-0.733																																													
Subtotal	-8.154	-25.485	-5.858	-0.733																																													

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE:		February 2005	
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N / BA-5			Ship Contract Design/LFT&E PE 0604567N			CVN 77 Design 2301				
D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2004</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 5300 Completion of PY Shipbuilding Programs			145.000	348.449	376.475					869.924
E. ACQUISITION STRATEGY:										
CVN77 is the 10th and last ship of the CVN68 Nimitz class of aircraft carriers. A sole source FPIF contract for basic construction was awarded to NGNN in January 2001.										
F. MAJOR PERFORMERS:										
Northrop Grumman Newport News Shipbuilding , Newport News Virginia SPAWAR, San Diego Ca NAVSEA, Washington DC NAVAIR, Pax River Md										

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)												DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME								
RDT&E, N / BA-5			Ship Contract Design/LFT&E PE 0604567N				CVN 77 Design 2301								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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	
CVN 77 Product Development	PR,SS	NGNN, Newport News VA	123.206	3.000	12/03	0.000		0.000					126.206		
	SS, CPFF	Bettis Atomic Pwr Labs, Pa	42.691										42.691	42.691	
	WR	NAWCS Lakehurst NJ, Pax Md	5.638	0.398	12/03	0.000		0.000					6.036		
	WR	NSWC Dahlgren	22.420	1.835	12/03	0.000		0.000					24.255		
	PD/WR	SPAWAR, San Diego Ca	10.568	6.587	12/03	0.000		0.000					17.155		
	PD	NAVSEA Wash DC	6.949	2.603	12/03	0.000		0.000					9.552		
	Various	Miscellaneous	30.940	1.160	12/03	0.000		0.000					32.100		
	WR	NSWC Carderock	1.859	0.387	12/03	0.000		0.000		0.000			2.246		
		cost of war withhold	1.300										1.300		
CVNX Product Development	PR,SS	NGNN, Newport News VA	33.178										33.178		
	MIPR	Anteon Corp, Arlington Va	1.816										1.816		
	PD	NAVAIR, Pax River Md	7.091										7.091		
	Various	Miscellaneous	1.472										1.472		
Subtotal Product Development			289.128	15.970		0.000		0.000		0.000			305.098		
Development Support															
Software Development															
Training Development															
Integrated Logistics Support															
Configuration Management															
Technical Data															
GFE															
Award Fees															
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000			

R-1 SHOPPING LIST - Item No.

116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)													DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5			PROGRAM ELEMENT Ship Contract Design/LFT&E PE 0604567N				PROJECT NUMBER AND NAME CVN 77 Design 2301								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY04 Cost	FY04 Award Date	FY05 Cost	FY05 Award Date	FY06 Cost	FY06 Award Date	FY07 Cost	FY07 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation															
Operational Test & Evaluation															
Live Fire Test & Evaluation	WR	NSWC Carderock	8.541										8.541		
	Various	Miscellaneous	0.743										0.743		
Tooling															
GFE															
Award Fees															
Subtotal T&E			9.284	0.000		0.000		0.000		0.000		0.000	9.284		
Remarks:															
Contractor Engineering Support															
Government Engineering Support															
Program Management Support		NAVSEA MAC		4.488		0.000		0.000					4.488		
Travel			0.106	0.062		0.010		0.000					0.168		
Labor (Research Personnel)															
SBIR Assessment															
Subtotal Management			0.106	4.550		0.010		0.000				0.000	4.656		
Remarks:															
Total Cost			298.518	20.520		0.010		0.000		0.000		0.000	319.038		
Remarks:															

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:											
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-5												Ship Contract Design/LFT&E PE 0604567N												CVN 77 Design 2301											
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
Contract Milestones																																			
Construction Contract																																			
Post Shakedown Availability																																			
T&E Milestones																																			

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA 5	PROGRAM ELEMENT NAME AND NUMBER Ship Contract Design/LFT&E PE 0604567N				PROJECT NAME AND NUMBER CVN 21 LFT&E 4007			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	8.657	8.490	7.533	7.576	7.473	8.480	7.639	3.550
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project encompasses LFT&E efforts for CVN 78 and CVN 79. Title 10, US Code, Section 2366, CVN 21 Operational Requirements Document (ORD) and the CVN 21 Test and Evaluation Master Plan , prescribe requirements for Live Fire Test and Evaluation (LFT&E). The purpose of LFT&E is to evaluate weapons and weapons systems in a realistic combat environment and to identify any mission threatening vulnerabilities early in the development process when there is time to take corrective action. The CVN 21 LFT&E Management Plan details the efforts, through testing and engineering analyses, to address potential design vulnerabilities.

The high unit cost of CVN 21 class and its shipboard systems preclude consideration of destructive testing of a full-up CVN 21 class hull with threats of the type that might be expected in combat. Consequently, the Navy must rely on other means to determine that CVN 21 class ships will be able to survive and carry out its missions in the face of the threats identified in the CVN 21 System Threat Assessment Report.

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E PE 0604567N	PROJECT NUMBER AND NAME CVN 21 LFT&E 4007	

B. Accomplishments/Planned Program

	FY04	FY05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	8.657	8.490	7.533	7.576
RDT&E Articles Quantity				

(U) FY04/05: Resolve low confidence areas in analytical models for LFT&E concerns and continue to conduct LFT&E surrogate test program. This includes continuation of testing underwater protection features (innerbottom structure and Torpedo Side Protection System), dynamic test of hull girder models and conduct of recoverability tests, and vulnerability modeling of the CVN 78 for Vulnerability Assessment Report #3. Initiate survivability modeling improvements. Conduct weapon debris full scale tests and analyses. Conduct underwater explosion and recoverability surrogate tests on the Large Test Asset (LTA). Continue with analytical bridge work between scaled model test results and analytical correlations. Update and develop new SVM models. Prepare, construct and test full and scaled surrogate model targets as required by TEMP 1610 and the LFT&E Management Plan. Conduct analyses and tests on ex-SHADWELL to evaluate ordnance in CVN 78 class representative locations, to review hangar bay fire spread, to determine desmoking and dewatering capabilities, data network system, and to assess fire main vulnerability. Continue intensive vulnerability modeling of CVN 78 for Vulnerability Assessment Report #3. Continue survivability model improvements to support CVN 78 vulnerability assessment. Begin analyses of CVN 21 class vulnerability for VAR 3. In support of ORD vulnerability requirements testing, begin planning efforts & begin representative CVN 21 class fire and smoke spread tests, and main drainage analyses; assess designed passive damage control features and conduct recoverability modeling tests.

(U) FY06: Conduct susceptibility assessment of the CVN 21 class. Continue to resolve low confidence areas in analytical models for LFT&E concerns and continue to conduct LFT&E surrogate test program. This includes continuation of testing underwater protection features (innerbottom structure), and conduct of recoverability tests. Continue survivability modeling improvements. Continue with analytical bridge work between scaled model test results and analytical correlations. Continue update and develop new SVM/ASAP models. Prepare, construct and test full and scaled surrogate model targets as required by TEMP 1610 and the LFT&E Management Plan. Refurbish Flight Deck Model. Finalize vulnerability analyses and drafting of Vulnerability Assessment Report #3. Continue survivability model improvements to support CVN 21 class vulnerability assessment. In support of ORD vulnerability requirements testing, conduct representative CVN 21 class fire and smoke spread tests, flight deck fire tests, and main drainage tests; conduct test of the passive damage control features and conduct recoverability modeling tests.

(U) FY07: Continue susceptibility assessment of the CVN 21 class. Continue to resolve low confidence areas in analytical models for LFT&E concerns and continue to conduct LFT&E surrogate test program. This includes testing Damage Prevention Protection System, System B components, & continuation of testing underwater protection features (innerbottom structure), and conduct of recoverability tests, and deliver the CVN 21 Vulnerability Assessment Report #3. Initiate survivability modeling improvements. Continue with analytical bridge work between scaled model test results and analytical correlations. Update and develop new SVM models. Prepare, construct and test full and scaled surrogate model targets as required by TEMP 1610 and the LFT&E Management Plan. Conduct Flight Deck testing and analysis.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E PE 0604567N	PROJECT NUMBER AND NAME CVN 21 LFT&E 4007		

C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY05 President's Budget	8.797	8.605	8.158	8.108
FY06 President's Budget	8.657	8.490	7.533	7.576
Total Adjustments	-0.140	-0.115	-0.625	-0.532
Summary of Adjustments				
Congressional Recissions	-0.098	-0.105		
SBIR reduction	-0.020			
Technical & Miscellaneous Adjustments	-0.022	-0.010	-0.625	-0.532
	-0.140	-0.115	-0.625	-0.532

Schedule:

The CVN 78 Basic Construction contract will be awarded in FY08 with delivery in FY15.

Technical:

Not Applicable

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:		
								February 2005		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N / BA-5			Ship Contract Design/LFT&E PE 0604567N			CVN 21 LFT&E 4007				
D. OTHER PROGRAM FUNDING SUMMARY:										
Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
BLI 200100 Carrier Replacement Program	1,162.905	623.551	564.913	795.994	3,689.413	3,730.407	1,657.362	539.680	Cont.	Cont.
PE 0603512N Carrier System Development	145.490	161.930	167.823	198.395	160.688	155.120	146.126	85.451	Cont.	Cont.
PE 0603570N Adv. Nuclear Power Systems	198.814	168.080	168.373	170.980	160.992	152.814	133.951	105.975	Cont.	Cont.
*Note: Only a portion of the funding in PE 0603570N is included in the CVN 21 Program										
E. ACQUISITION STRATEGY:										
The CVN 78 will be the first ship of the CVN 21 class of aircraft carriers. Due to the length and cost of construction, each carrier will be contracted for separately. The CVN 78 will feature a new nuclear propulsion and electrical generation/distribution system, new electromagnetic aircraft launching system, advanced arresting gear system, all electric auxiliaries, warfare system improvements, survivability enhancements, improved weapons handling, and improved aircraft servicing. These design features will result in lower manpower and total ownership costs as compared to the Nimitz Class. Additionally, the following warfighting benefits will be realized: increased sortie generation rate, improved ship self defense capability, increased launch and recovery capability/flexibility, increased operational availability, and increased flexibility to support future upgrades.										
F. MAJOR PERFORMERS:										
NSWC Carderock Maryland										

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis												DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT					PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			Ship Contract Design/LFT&E PE 0604567N					CVN 21 LFT&E 4007						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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
Live Fire Test & Evaluation	WX	NSWC Carderock, MD	7.780	7.598	12/03	7.225	12/04	7.005	12/05	7.046	12/06	Continuing	Continuing	
	Various	Miscellaneous	1.233	1.059	12/1/2003 5/31/2004	1.265	12/04	0.528	12/05	0.530	12/06	Continuing	Continuing	
Subtotal T&E			9.013	8.657		8.490		7.533		7.576		Continuing	Continuing	
Remarks:														
Contractor Engineering Support														
Government Engineering Support														
Program Management Support														
Travel														
Labor (Research Personnel)														
SBIR Assessment														
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Total Cost			9.013	8.657		8.490		7.533		7.576		Continuing	Continuing	
Remarks:														

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:											
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-04												PE 0603512N - Carrier Systems Development												CVN 21 LFT&E 4007											
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Acquisition Milestones		MS B	SRR				SFR		PDR				CDR	DAB	PR																				
Propulsion Plant																																			
EMALS		SDD AWARD			SRR	SFR	PDR	CDR 1	CDR 2	TRR 1			TRR 2				LRIP																		
DBR Radar Suite		PDR			CDR																														
Advanced Arresting Gear	SRR			PDR	MS B			CDR-1-2					TRR 1				TRR 2				MS C														
Test & Evaluation Milestones																																			
Development Test	◇						DT A2					◇	◇			DT B1				◇	◇			DT B2				◇	◇		DT B3				
Operational Test							OT B1	◇					◇		OT B2	◇	◇	OT B3	◇	◇		OT B4	◇					◇			OT B5	◇			
Contract Milestones																																			
IPPD Contract																																			
CP Contract		Contract Award																																	
Construction Contract																	Contract Award																		
Full Funding (SCN)																	X																		

R-1 SHOPPING LIST - Item No. 116

* Not required for Budget Activities 1, 2, 3, and 6

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 14 of 70)

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-4a, Schedule Detail							DATE:	
APPROPRIATION/BUDGET ACTIVITY							February 2005	
RDT&E, N / BA-04			PROGRAM ELEMENT PE 0603512N - Carrier Systems Development				PROJECT NUMBER AND NAME CVN 21 LFT&E 4007	
Schedule Profile	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11
Developmental Tests DT A-2	1-4Q							
Advanced Arresting Gear SRR	1Q							
EMALS SDD Phase Initiate	2Q							
Dual Band Radar PDR	2Q							
CVN 21 Milestone B	3Q							
CVN 21 SRR	3Q							
Construction Preparation Contract Award	3Q							
Advanced Arresting Gear PDR	4Q							
EMALS SRR		1Q						
Developmental Tests DT A-2		1-4Q						
Dual Band Radar CDR		1Q						
Advanced Arresting Gear Milestone B		1Q						
Operational Tests OT-B1		2-3Q						
EMALS SFR		2Q						
CVN 21 SFR		3Q						
EMALSP PDR		3Q						
EMALS CDR 1		4Q						
Advanced Arresting Gear CDR 1		4Q						
CVN 21 PDR			1Q					
Developmental Tests DT A-2			1-4Q					
AAG CDR 2			1Q					
EMALS CDR 2			2Q					
EMALS TRR 1(HALT/HCT)			4Q					
CVN 21 CDR				1Q				
Developmental Tests DT-B1				1-4Q				
Operational Tests OT-B2				1-4Q				
CVN 21 DAB PR				2Q				
AAG TRR 1 (DT/OA)				2Q				
EMALS TRR 2 (DT/OA)				4Q				
CVN 21 Construction Contract Award					1Q			
CVN 21 SCN Full Funding					1Q			
Developmental Tests DT-B1					1-4Q			
Operational Tests OT-B3					1-4Q			
EMALS LRIP					4Q			
AAG TRR 2 (DT/OA)						1Q		
Developmental Tests DT-B1						1Q		
Operational Tests OT-B4						1-4Q		
Developmental Tests DT-B2						3-4Q		
Developmental Tests DT-B2							1-4Q	
AAG LRIP								1Q
Operational Tests OT-B5								1-4Q
Developmental Tests DT-B3								2-4Q

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:
APPROPRIATION/BUDGET ACTIVITY								February 2005
RDT&E, N / BA 5								
PROGRAM ELEMENT NAME AND NUMBER								
Ship Contract Design/LFT&E PE 0604567N								
PROJECT NAME AND NUMBER								
CVN 21 Total Ship Integration 4008								
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	22.691	62.600	9.721	22.204	6.918	0.000	0.000	0.000
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>This project encompasses CVN 78 Total Ship Integration efforts. The traditional distinct phasing of the design process for aircraft carriers has been replaced with a continuous concurrent engineering regime incorporating the methodology, measurement, and management elements of the Navy's Integrated Product and Process Development (IPPD) process, extending it beyond contract award. The CVN 78 total ship integration effort will be managed within a technology change management process at contract award to allow further system development. This will ensure that the latest technologies are properly incorporated during the 8 year construction period for an aircraft carrier, without costly contract changes. The IPPD process serves to maintain the focus of multi-discipline teams consisting of the government, shipbuilder, aviation programs, and suppliers. Government/Industry Integrated Product Teams (IPTs) utilize the IPPD process within an Integrated Data Environment (IDE) to design and develop ship construction Contract Data Packages (CDPs). The CVN 21 class design approach is part of an acquisition strategy that is based on incorporating best available commercial practices and a phased technical definition.</p> <p>CVN 78 Total Ship Integration, the integration of major systems into ship design, includes redesign and rearrangement of ship components; redesign of hull, mechanical and electrical (HM&E) and auxiliary systems (air-conditioning and ventilation, power distribution and generation, airborne noise management, reduction of steam, environmental safety and health (ESH) and interface control; redesign of water production and tankage; electric loads analysis; redesign of power distribution; analysis and redesign of structure; analysis, tracking and management of changes in weight distribution and stability; analysis and redesign of survivability systems, and analysis and design of all associated ship hull, mechanical, electrical, propulsion, combat/warfare system, survivability and other related components. This project also encompasses those tasks required to develop the contract data package necessary to support CVN 78 procurement, including, but not limited to engineering support, programmatic and program support, logistics support, modeling and simulation, manpower and program related studies.</p>								

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E PE 0604567N	PROJECT NUMBER AND NAME CVN 21 Total Ship Integration 4008		
B. Accomplishments/Planned Program				
	FY04	FY05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	22.691	62.600	9.721	22.204
RDT&E Articles Quantity				
<div>FY04 - FY07 (U) Continue to resolve CVN 78 whole ship design issues related to aviation systems, combat and integrated warfare systems, auxiliary systems, and HM&E systems. Update the contract data package, including design drawings and specifications in areas where near- term LLTM advanced purchase and early fabrication work may be impacted. The update accommodates changes to the ship, its systems and equipment necessitated by equipment obsolescence, operational need, and incorporation of newer systems/technology. Provide required program management and logistics support, Accomplish Total Ship Integration through the IPPD process to incorporate the design changes required to the legacy baseline design for definition at the total system level.</div>				

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005																																																								
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E PE 0604567N	PROJECT NUMBER AND NAME CVN 21 Total Ship Integration 4008																																																									
<p>C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Funding:</th> <th style="text-align: right; width: 15%;">FY 2004</th> <th style="text-align: right; width: 15%;">FY 2005</th> <th style="text-align: right; width: 15%;">FY 2006</th> <th style="text-align: right; width: 15%;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget: (FY 05 Pres Controls)</td> <td style="text-align: right;">23.730</td> <td style="text-align: right;">37.905</td> <td style="text-align: right;">35.100</td> <td style="text-align: right;">21.970</td> </tr> <tr> <td>FY06 President's Budget</td> <td style="text-align: right;">22.690</td> <td style="text-align: right;">62.600</td> <td style="text-align: right;">9.721</td> <td style="text-align: right;">22.204</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-1.040</td> <td style="text-align: right; border-top: 1px solid black;">24.695</td> <td style="text-align: right; border-top: 1px solid black;">-25.379</td> <td style="text-align: right; border-top: 1px solid black;">0.234</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td style="padding-left: 20px;">Congressional Recissions</td> <td style="text-align: right;">-0.300</td> <td style="text-align: right;">-0.764</td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Inflation Adjustments</td> <td style="text-align: right;">-0.022</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">SBIR reductions</td> <td style="text-align: right;">-0.380</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Programmatic Adjustments</td> <td></td> <td style="text-align: right;">25.459</td> <td style="text-align: right;">-25.379</td> <td style="text-align: right;">0.234</td> </tr> <tr> <td style="padding-left: 20px;">Technical & Miscellaneous Adjustments</td> <td style="text-align: right;">-0.338</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Subtotal</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">-1.040</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">24.695</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">-25.379</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">0.234</td> </tr> </tbody> </table> <p style="margin-top: 20px;">Schedule:</p> <p style="margin-left: 20px;">The CVN 78 Basic Construction contract will be awarded in FY08 with delivery in FY15.</p> <p style="margin-top: 20px;">Technical:</p> <p style="margin-left: 20px;">Not Applicable</p>					Funding:	FY 2004	FY 2005	FY 2006	FY 2007	Previous President's Budget: (FY 05 Pres Controls)	23.730	37.905	35.100	21.970	FY06 President's Budget	22.690	62.600	9.721	22.204	Total Adjustments	-1.040	24.695	-25.379	0.234	Summary of Adjustments					Congressional Recissions	-0.300	-0.764			Inflation Adjustments	-0.022				SBIR reductions	-0.380				Programmatic Adjustments		25.459	-25.379	0.234	Technical & Miscellaneous Adjustments	-0.338				Subtotal	-1.040	24.695	-25.379	0.234
Funding:	FY 2004	FY 2005	FY 2006	FY 2007																																																							
Previous President's Budget: (FY 05 Pres Controls)	23.730	37.905	35.100	21.970																																																							
FY06 President's Budget	22.690	62.600	9.721	22.204																																																							
Total Adjustments	-1.040	24.695	-25.379	0.234																																																							
Summary of Adjustments																																																											
Congressional Recissions	-0.300	-0.764																																																									
Inflation Adjustments	-0.022																																																										
SBIR reductions	-0.380																																																										
Programmatic Adjustments		25.459	-25.379	0.234																																																							
Technical & Miscellaneous Adjustments	-0.338																																																										
Subtotal	-1.040	24.695	-25.379	0.234																																																							

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:		
								February 2005		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N / BA-5			Ship Contract Design/LFT&E PE 0604567N			CVN 21 Total Ship Integration 4008				
D. OTHER PROGRAM FUNDING SUMMARY:										
Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
BLI 200100 Carrier Replacement Program	1,162.905	623.551	564.913	795.994	3,689.413	3,730.407	1,657.362	539.680	Cont.	Cont.
PE 0603512N Carrier System Development	145.490	161.930	167.823	198.395	160.688	155.120	146.126	85.451	Cont.	Cont.
PE 0603570N Adv. Nuclear Power Systems	198.814	168.080	168.373	170.980	160.992	152.814	133.951	105.975	Cont.	Cont.
*Note: Only a portion of the funding in PE 0603570N is included in the CVN 21 Program										
E. ACQUISITION STRATEGY:										
The CVN 78 will be the first ship of the CVN 21 class of aircraft carriers. Due to the length and cost of construction, each carrier will be contracted for separately. The CVN 78 will feature a new nuclear propulsion and electrical generation/distribution system, new electromagnetic aircraft launching system, advanced arresting gear system, all electric auxiliaries, warfare system improvements, survivability enhancements, improved weapons handling, and improved aircraft servicing. These design features will result in lower manpower and total ownership costs as compared to the Nimitz Class. Additionally, the following warfighting benefits will be realized: increased sortie generation rate, improved ship self defense capability, increased launch and recovery capability/flexibility, increased operational availability, and increased flexibility to support future upgrades.										
F. MAJOR PERFORMERS:										
Northrop Grumman Newport News NSWC Carderock NAWC Lakehurst NAVSEA										

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)												DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT Ship Contract Design/LFT&E PE 0604567N					PROJECT NUMBER AND NAME CVN 21 Total Ship Integration 4008						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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
Total Ship Integration	WX	NSWC Carderock	10.480	1.602	12/03	3.003	12/04		12/05	7.200	12/06	Continuing	Continuing	
	SS, CPAF	NGNN, Newport News Va	33.043	5.870	12/03	23.417	12/04	1.000	12/05		12/06	Continuing	Continuing	
	IPR	GSA	5.550	0.338										
	WX	NAWC, Lakehurst	3.855	0.268	12/03							Continuing	Continuing	
	WX	NSWC Dahlgren		2.554	12/03	5.740	12/04			3.500	12/06			
	WX	NSWC, Port Hueneme	4.000									Continuing	Continuing	
	PR	NAVSEA SEAPORT		8.135	12/03	14.534	12/04	6.490	12/05	4.071	12/06	Continuing	Continuing	
	WX	NAWC AD, PAX River		2.383		6.445	12/04			4.000	12/06			
	PD	SPAWAR, San Diego	8.766			1.960	12/04					Continuing	Continuing	
	Various	Miscellaneous	8.766	1.390	12/03	7.351	12/04	2.081	12/05	3.283	12/06	Continuing	Continuing	
Subtotal Product Development			74.460	22.540		62.450		9.571		22.054		Continuing	Continuing	
Remarks: For FY02 and prior this effort was accomplished under PE 0603512N, projects 42208 and 42693														
Development Support														
Software Development														
Training Development														
Integrated Logistics Support														
Configuration Management														
Technical Data														
GFE														
Award Fees														
Subtotal Support			0.000	0.000		0.000		0.000		0.000				
Remarks:														

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)												DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5				PROGRAM ELEMENT Ship Contract Design/LFT&E PE 0604567N				PROJECT NUMBER AND NAME CVN 21 Total Ship Integration 4008						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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														
Operational Test & Evaluation														
Live Fire Test & Evaluation														
Test Assets														
Tooling														
GFE														
Award Fees														
Subtotal T&E			0.000	0.000		0.000		0.000		0.000				
Remarks:														
Contractor Engineering Support														
Government Engineering Support														
Program Management Support														
Travel			0.102	0.150		0.150		0.150		0.150				
Labor (Research Personnel)														
SBIR Assessment														
Subtotal Management			0.102	0.150		0.150		0.150		0.150				
Remarks:														
Total Cost			74.562	22.690		62.600		9.721		22.204				
Remarks:														

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:												
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME												
RDT&E, N / BA-04												PE 0603512N - Carrier Systems Development												CVN 21 Total Ship Integration 4008												
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones		MS B ▲	SRR ▲				SFR ▲		PDR ▲				CDR ▲	DAB ▲	PR																					
Propulsion Plant																																				
EMALS		SDD AWARD ▲			SRR ▲	SFR ▲	PDR ▲	CDR 1 ▲	CDR 2 ▲	TRR 1 ▲			TRR 2 ▲						LRIP ▲																	
DBR Radar Suite		PDR ▲			CDR ▲																															
Advanced Arresting Gear	SRR ▲			PDR ▲	MS B ▲			CDR-1-2 ▲					TRR 1 ▲						TRR 2 ▲					MS C ▲												
Test & Evaluation Milestones																																				
Development Test	◆	DT A2								◆	DT B1								◆	DT B2								◆	DT B3							
Operational Test					OT B1			◆					◆	OT B2			◆	OT B3			◆	OT B4			◆					OT B5			◆			
Contract Milestones																																				
IPPD Contract																																				
CP Contract			Contract Award ▲																																	
Construction Contract																																				
Full Funding (SCN)																																				
															</																					

R-1 SHOPPING LIST - Item No. 116

* Not required for Budget Activities 1, 2, 3, and 6

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-4a, Schedule Detail							DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME			
RDT&E, N / BA-04		PE 0603512N - Carrier Systems Development				CVN 21 Total Ship Integration 4008			
Schedule Profile	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	
Developmental Tests DT A-2	1-4Q								
Advanced Arresting Gear SRR	1Q								
EMALS SDD Phase Initiate	2Q								
Dual Band Radar PDR	2Q								
CVN 21 Milestone B	3Q								
CVN 21 SRR	3Q								
Construction Preparation Contract Award	3Q								
Advanced Arresting Gear PDR	4Q								
EMALS SRR		1Q							
Developmental Tests DT A-2		1-4Q							
Dual Band Radar CDR		1Q							
Advanced Arresting Gear Milestone B		1Q							
Operational Tests OT-B1		2-3Q							
EMALS SFR		2Q							
CVN 21 SFR		3Q							
EMALSP PDR		3Q							
EMALS CDR 1		4Q							
Advanced Arresting Gear CDR 1		4Q							
CVN 21 PDR			1Q						
Developmental Tests DT A-2			1-4Q						
AAG CDR 2			1Q						
EMALS CDR 2			2Q						
EMALS TRR 1(HALT/HCT)			4Q						
CVN 21 CDR				1Q					
Developmental Tests DT-B1				1-4Q					
Operational Tests OT-B2				1-4Q					
CVN 21 DAB PR				2Q					
AAG TRR 1 (DT/OA)				2Q					
EMALS TRR 2 (DT/OA)				4Q					
CVN 21 Construction Contract Award					1Q				
CVN 21 SCN Full Funding					1Q				
Developmental Tests DT-B1					1-4Q				
Operational Tests OT-B3					1-4Q				
EMALS LRIP					4Q				
AAG TRR 2 (DT/OA)						1Q			
Developmental Tests DT-B1						1Q			
Operational Tests OT-B4						1-4Q			
Developmental Tests DT-B2						3-4Q			
Developmental Tests DT-B2							1-4Q		
AAG LRIP								1Q	
Operational Tests OT-B5								1-4Q	
Developmental Tests DT-B3								2-4Q	

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: Feburary 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N				PROJECT NUMBER AND NAME 1803 Ship Contract Design			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	1.731	1.696	11.538	6.465	4.723	4.753	4.753	4.716
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Mission Description and Budget Item Justification: This project supports development of all technical, programmatic and contractual documentation required for the acquisition of various ships in the Navy's Shipbuilding Program. The major effort is the engineering development of the technical and contractual definition of the ship's design (e.g. ship specifications and drawings), with sufficient details for the prospective shipbuilder to make a sound estimate of construction cost and schedule. It also serves as the technical definition from which the shipbuilder develops the shipbuilding detailed design and testing package required to build and test the ship. This funding also provides for Navy retention of unique ship design knowledge. It provides the Navy with a digital, ship design knowledge base, including lessons learned, required to ensure that a proper development, analysis and evaluation can be conducted of any current or future planned Navy ship. This data base will serve as the basis to evaluate and qualify any future ship design. Another area this project funds is the development of specific Navy ship criteria and standards for newly developed technologies. Additionally, as new laws are passed, new safety regulations and environmental criteria are developed and other legal/Congressional requirements identified, this project funds the translation into Navy ship design criteria and standards. This project also funds the translation of the traditional Ship Specifications into performance-based criteria, which will serve for the future acquisition of Navy Ship and supports the development of design methodologies/tools which facilitate and optimize the transition from ship design documents to efficient production of new ships and ship conversions.

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 24 of 70)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: Feburary 2005																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N	PROJECT NUMBER AND NAME 1803 Ship Contract Design																	
B. Accomplishments/Planned Program																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 40%;">Cruiser Modernization Program</td><td style="width: 10%;">FY 04</td><td style="width: 10%;">FY 05</td><td style="width: 10%;">FY 06</td><td style="width: 10%;">FY 07</td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td>1.731</td><td>0.000</td><td>11.538</td><td>6.465</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></table>					Cruiser Modernization Program	FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	1.731	0.000	11.538	6.465	RDT&E Articles Quantity				
Cruiser Modernization Program	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	1.731	0.000	11.538	6.465															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px; min-height: 60px;">Continued CG Planning Yard modernization design and engineering efforts; continued government efforts for design products, data base development, specifications development, and program planning; and continued system integration efforts for Baseline 4 lead ship system procurement awards in FY04. Initiate CG Planning Yard modernization design and engineering efforts; government efforts for design products, data base development, specifications development, and program planning; and system integration efforts for shipboard systems leading to Baseline 2 lead ship procurement award.</div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 40%;">Sea Base Connector</td><td style="width: 10%;">FY 04</td><td style="width: 10%;">FY 05</td><td style="width: 10%;">FY 06</td><td style="width: 10%;">FY 07</td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td>0.000</td><td>1.696</td><td>0.000</td><td>0.000</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></table>					Sea Base Connector	FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	0.000	1.696	0.000	0.000	RDT&E Articles Quantity				
Sea Base Connector	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	0.000	1.696	0.000	0.000															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px; min-height: 60px;">This profile provides for pre-systems acquisition efforts to include: Functional Area Analysis, Concept Studies, the development of an Initial Capabilities Document (ICD), Feasibility Studies and the Analysis of Alternatives that supports the Capabilities Development phase leading to Systems Acquisition and Milestone A.</div>																			

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: Feburary 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N	PROJECT NUMBER AND NAME 1803 Ship Contract Design		

C. PROGRAM CHANGE SUMMARY:

	FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget:	7.549	10.249	18.792	18.813
Current President's Budget:	1.731	1.696	11.538	6.465
Total Adjustments	-5.818	-8.553	-7.254	-12.348
Summary of Adjustments				
Congressional undistributed reductions	-0.031	-0.015		
SBIR reductions	-0.033			
Inflation Adjustments				
Programmatic Adjustments		-8.538	-7.254	-12.348
LCAC Program restructure and PE realignment	-5.750			
Cancelled Accounts	-0.004			
NSWC Rate Adjustments				
Subtotal	-5.818	-8.553	-7.254	-12.348

Schedule:

CG Modernization procurement contract awards reflect Baseline 2 lead ship funded for long lead equipment procurement in FY06 and modernization availability in FY08. Baseline 3 and Baseline 4 lead ships are funded for procurement in the outyears. Design efforts funded in RDT&E,N leading to procurement contract awards have been scheduled accordingly.

Technical:

Not Applicable.

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: Feburary 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N			PROJECT NUMBER AND NAME 1803 Ship Contract Design				

D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
OPN 096000 CG Modernization	42	0	135	238	296	298	399	475	900	2,783
WPN 422300 CG Modernization	9	0	5	16	21	45	47	48	300	492
O&MN 1B5B CG Modernization	8	0	44	141	150	137	130	128	1,800	2,538
Sea Base Connector										
RDT&E 0603564 3127	0.000	0.000	14.415	13.849	13.569	0.000	0.000	0.000	0.000	41.833
RDT&E 0603564 3133	0.000	0.000	0.000	0.000	18.156	22.395	8.816	1.719	0.000	51.086
SCN 0204411N 5112	0.000	0.000	0.000	0.000	0.000	0.000	99.088	209.027	0.000	308.115

E. ACQUISITION STRATEGY:

N/A

F. MAJOR PERFORMERS:

N/A

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)												DATE: Feburary 2005			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT Ship Contract Design/LFT&E 0604567N				PROJECT NUMBER AND NAME 1803 Ship Contract Design								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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	
CG Mod Class Design/Integration	SS/CPAF	Northrop Grumman, Pascagoula, MS		0.768	02/04	0.000	11/04	8.725	11/05	5.790	11/06		15.283		
CG Mod Electronic Systems Eng	C/CPAF	LMGES, Moorestown, NJ		0.963	02/04	0.000	11/04	2.813	11/05	0.675	11/06		4.451		
S B Connector Conc. Dev./AoA	C/CPFF	TBD				1.696	12/04						1.696		
													0.000		
													0.000		
													0.000		
													0.000		
Subtotal Product Development				1.731		1.696		11.538		6.465		0.000	21.430		
Remarks:															
HLCAC Government Engineering Sp	MISC	NSWC DD: Panama City											0.000		
													0.000		
													0.000		
													0.000		
													0.000		
													0.000		
													0.000		
Subtotal Support				0.000		0.000		0.000		0.000		0.000	0.000		
Remarks:															

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)											DATE: Feburary 2005			
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-5			PROGRAM ELEMENT Ship Contract Design LFT&E 0604567N			PROJECT NUMBER AND NAME 1803 Ship Contract Design								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
HLCACTravel													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Total Cost			CONT.	1.731		1.696		11.538		6.465		CONT.	21.430	
Remarks:														

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:								
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT NUMBER AND NAME								PROJECT NUMBER AND NAME																				
RDT&E, N / BA-5				Ship Contract Design/LFT&E 0604567N								1803 Ship Contract Design																				
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones																																
CG Baseline 4 Contract Design																																
CG Baseline 2 Contract Design																																
CG Baseline 3 Contract Design																																
Sea Base Connector ICD and AoA PE realignment in FY06 and beyond																																
Test & Evaluation Milestones																																
CG Modernization: Susceptibility & Vulnerability Analyses																																
Recoverability Analyses																																
Total Ship Survivability Trial																																
Vulnerability Analysis Report																																
Production Milestones																																
CG Modernization: System Procurement Awards																																
Deliveries																																

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: Feburary 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT Ship Contract Design/LFT&E 0604567N				PROJECT NUMBER AND NAME 1803 Ship Contract Design			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Cruiser Modernization								
Continue CG Baseline 4 Engineering	1Q	1Q	1Q	1Q	1Q	1Q	1Q	1Q
Continue CG Baseline 2 Engineering		1Q	1Q	1Q	1Q	1Q	1Q	1Q
Continue CG Baseline 3 Engineering			1Q	1Q	1Q	1Q	1Q	1Q
Initiate CG Susceptibility and Vulnerability Analyses	1Q							
Initiate CG Recoverability Analyses	1Q							
CGM Procurement Award	1Q							
CGM Procurement Award			1Q					
CGM Procurement Award				1Q				
CGM Procurement Award				1Q				
CGM Procurement Award					1Q			
CGM Procurement Award					1Q			
CGM Procurement Award						1Q		
CGM Procurement Award						1Q		
CGM Procurement Award							1Q	
CGM Procurement Award							1Q	
CGM Procurement Award								1Q
CGM Procurement Award								1Q
CGM Procurement Award								1Q
Sea Base Connector								
Initiate/Complete ICD and AoA		1Q						

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 31 of 70)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N				PROJECT NUMBER AND NAME 2198 LFT&E			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	4.213	0.000	2.745	1.563	0.000	0.000	0.000	0.000
RDT&E Articles Qty								
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides for the development and performance of Live Fire Test and Evaluation analyses, tests, trials, and other engineering information required to fulfill statutory and programmatic requirements for combat effective naval warfare for the Cruiser Modernization Program.								

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RDTE Budget Item Justification
(Exhibit R-2, page 32 of 70)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: Feburary 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N	PROJECT NUMBER AND NAME 2198 LFT&E		
B. Accomplishments/Planned Program				
Cruiser Modernization Program	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	4.213	0.000	2.745	1.563
RDT&E Articles Quantity				
<p>Perform suseptibility, vulnerability, and recoverability analyses for the Cruiser Modernization Program. Continue planning and preparations for the Total Ship Survivability Trial planned for FY09.</p>				

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: Feburary 2005																																																								
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / EBA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N	PROJECT NUMBER AND NAME 2198 LFT&E																																																									
<p>C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%; text-align: right;">FY 2004</th> <th style="width: 10%; text-align: right;">FY 2005</th> <th style="width: 10%; text-align: right;">FY 2006</th> <th style="width: 10%; text-align: right;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget:</td> <td style="text-align: right;">4.394</td> <td style="text-align: right;">4.474</td> <td style="text-align: right;">2.722</td> <td style="text-align: right;">1.545</td> </tr> <tr> <td>Current President's Budget:</td> <td style="text-align: right;">4.213</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">2.745</td> <td style="text-align: right;">1.563</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-0.181</td> <td style="text-align: right; border-top: 1px solid black;">-4.474</td> <td style="text-align: right; border-top: 1px solid black;">0.023</td> <td style="text-align: right; border-top: 1px solid black;">0.018</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td> Congressional undistributed reductions</td> <td style="text-align: right;">-0.049</td> <td></td> <td></td> <td></td> </tr> <tr> <td> SBIR reduction</td> <td style="text-align: right;">-0.121</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Congressional reduction</td> <td></td> <td style="text-align: right;">-4.474</td> <td></td> <td></td> </tr> <tr> <td> Misc. Adjustments</td> <td></td> <td></td> <td style="text-align: right;">0.023</td> <td style="text-align: right;">0.018</td> </tr> <tr> <td> Cancelled Account</td> <td style="text-align: right;">-0.011</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Subtotal</td> <td style="text-align: right;">-0.181</td> <td style="text-align: right;">-4.474</td> <td style="text-align: right;">0.023</td> <td style="text-align: right;">0.018</td> </tr> </tbody> </table> <p style="margin-top: 20px;">Schedule:</p> <p>CG Modernization LFT&E efforts are funded in RDT&E,N and have been scheduled consistent with the lead ship Total Ship Survivability Trial and Vulnerability Analysis Report in FY09.</p> <p style="margin-top: 20px;">Technical:</p> <p>Not Applicable.</p>						FY 2004	FY 2005	FY 2006	FY 2007	Previous President's Budget:	4.394	4.474	2.722	1.545	Current President's Budget:	4.213	0.000	2.745	1.563	Total Adjustments	-0.181	-4.474	0.023	0.018	Summary of Adjustments					Congressional undistributed reductions	-0.049				SBIR reduction	-0.121				Congressional reduction		-4.474			Misc. Adjustments			0.023	0.018	Cancelled Account	-0.011				Subtotal	-0.181	-4.474	0.023	0.018
	FY 2004	FY 2005	FY 2006	FY 2007																																																							
Previous President's Budget:	4.394	4.474	2.722	1.545																																																							
Current President's Budget:	4.213	0.000	2.745	1.563																																																							
Total Adjustments	-0.181	-4.474	0.023	0.018																																																							
Summary of Adjustments																																																											
Congressional undistributed reductions	-0.049																																																										
SBIR reduction	-0.121																																																										
Congressional reduction		-4.474																																																									
Misc. Adjustments			0.023	0.018																																																							
Cancelled Account	-0.011																																																										
Subtotal	-0.181	-4.474	0.023	0.018																																																							

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:		Feburary 2005	
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			Ship Contract Design/LFT&E 0604567N			2198 LFT&E					

D. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2004</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>
OPN 096000 CG Modernization	42	0	135	238	296	298	399	475	900	2,783
WPN 422300 CG Modernization	9	0	5	16	21	45	47	48	300	492
O&MN 1B5B CG Modernization	8	0	44	141	150	137	130	128	1,800	2,538

E. ACQUISITION STRATEGY:

Coast wide competitive procurement.

F. MAJOR PERFORMERS:

TBD

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)												DATE: Feburary 2005		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDTE&E, N / BA-5			Ship Contract Design/LFT&E 0604567N			2198 LFT&E								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:












Exhibit R-3 Cost Analysis (page 2)												DATE: Feburary 2005		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDT&E, N / BA-5			Ship Contract Design/LFT&E 0604567N			2198 LFT&E								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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
CG Modernization LFT&E	MISC	NRL/Grayhawk		4.213	10/03	0.000	10/03	2.745	10/03	1.563	10/04	0.000	8.521	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal T&E			0.000	4.213		0.000		2.745		1.563		0.000	8.521	
Remarks:														
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Total Cost			0.000	4.213		0.000		2.745		1.563		0.000	8.521	
Remarks:														

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																										DATE:						
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME																
RDT&E, N / BA-5				Ship Contract Design/LFT&E 0604567N												2198 LFT&E																
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones																																
Test & Evaluation Milestones																																
Susceptibility & Vulnerability Analyses																																
Recoverability Analyses																																
Total Ship Survivability Trial Vulnerability Analysis Report																																
Production Milestones																																
CG Modernization System Procurement Awards																																
Deliveries																					1				2			2				

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

[illegible]

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 39 of 70)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604567N Ship Contract Design / LFT&E				PROJECT NUMBER AND NAME 2465 LHA(R)			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	53.572	43.753	22.194	46.451	32.657	15.781	12.001	18.254
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION (CONTINUED):

FY 2004 LHA(R) FLIGHT 0 EXECUTION:

(U) (\$53.572M): Complete requirements trades and feasibility studies toward a more aviation focused LHA(R) Flight 0 configuration. Continue resolution of engineering/design issues and development of the Preliminary and Contract Designs. Continue improvements targeted at reducing operating and support costs. Continue warfare system design refinement. Resolve low confidence areas in analytical models for Live Fire Test and Evaluation (LFT&E) concerns and continue the LFT&E surrogate test program.

FY 2005-2007 LHA(R) FLIGHT 0/1 PLAN:

(U) (\$112.398M): Continue the integration of design improvements into the Total Ship Design. Continue developing functional and system level design and transition these efforts into the total ship engineering package that forms the basis for the solicitation package for the detail design and construction of the ships. Tasks to include analysis and engineering to support ship design management; design integration; hull systems; machinery; warfare systems; command, control, communication, computers, intelligence (C4I) systems; human system integration; mission systems; aviation systems and total ship survivability. Tasks will also include LFT&E analysis of surrogate test data and determining feasibility of incorporating lessons learned on LHA(R) Flight 0 or Flight 1.

R-1 SHOPPING LIST - Item No.

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA5	PROGRAM ELEMENT NUMBER AND NAME 0604567N Ship Contract Design / LFT&E	PROJECT NUMBER AND NAME 2465 LHA(R)		
B. Accomplishments/Planned Program				
LHA(R) Flt 0	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	53.572	39.053	3.500	0.000
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 10px; min-height: 60px;"> Continue preliminary design/contract design efforts leading to shipbuilding contract award for LHA(R) Flt 0. Resolve design issues and initiate the contract data package, including design drawings and specifications. Continue Total Ship Integration through the Integrated Process and Product Development (IPPD) process to incorporate design improvements. Continue development of system decision data packages. Continue susceptibility assessments. Resolve low confidence areas in analytical models for Live Fire Test and Evaluation (LFT&E) concerns and continue the LFT&E surrogate test program. </div>				
LHA(R) Flt 1	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	4.700	18.694	46.451
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 10px; min-height: 60px;"> Commence studies to support requirements definition for LHA(R) Flt 1. </div>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	0.000
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 10px; min-height: 40px;"></div>				

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005																																																								
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604567N Ship Contract Design / LFT&E	PROJECT NUMBER AND NAME 2465 LHA(R)																																																									
<p>C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Funding:</th> <th style="text-align: right; width: 15%;">FY 2004</th> <th style="text-align: right; width: 15%;">FY 2005</th> <th style="text-align: right; width: 15%;">FY 2006</th> <th style="text-align: right; width: 15%;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>FY 2005 President's Budget</td> <td style="text-align: right;">64.137</td> <td style="text-align: right;">44.180</td> <td style="text-align: right;">40.232</td> <td style="text-align: right;">45.991</td> </tr> <tr> <td>FY 2006 President's Budget</td> <td style="text-align: right;">53.572</td> <td style="text-align: right;">43.753</td> <td style="text-align: right;">22.194</td> <td style="text-align: right;">46.451</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-10.565</td> <td style="text-align: right; border-top: 1px solid black;">-0.427</td> <td style="text-align: right; border-top: 1px solid black;">-18.038</td> <td style="text-align: right; border-top: 1px solid black;">0.460</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td> Non-Pay Inflation Savings</td> <td style="text-align: right;">-0.060</td> <td></td> <td></td> <td></td> </tr> <tr> <td> FY04 SBIR</td> <td style="text-align: right;">-1.242</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Programmatic/Other Adjustments</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">-0.427</td> <td style="text-align: right;">-18.038</td> <td style="text-align: right;">0.460</td> </tr> <tr> <td> Cancelled Account Liability</td> <td style="text-align: right;">-0.163</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Omnibus Reprogramming</td> <td style="text-align: right;">-9.100</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Subtotal</td> <td style="text-align: right; border-top: 1px solid black;">-10.565</td> <td style="text-align: right; border-top: 1px solid black;">-0.427</td> <td style="text-align: right; border-top: 1px solid black;">-18.038</td> <td style="text-align: right; border-top: 1px solid black;">0.460</td> </tr> </tbody> </table> <p style="margin-top: 20px;">Schedule:</p> <p style="margin-left: 20px;">Contract design and Live Fire Test and Evaluation (LFT&E) efforts to support LHA(R) Flight 0 shipbuilding contract award in FY07 and LHA(R) Flight 1 shipbuilding contract award in FY10.</p> <p style="margin-top: 20px;">Technical:</p>					Funding:	FY 2004	FY 2005	FY 2006	FY 2007	FY 2005 President's Budget	64.137	44.180	40.232	45.991	FY 2006 President's Budget	53.572	43.753	22.194	46.451	Total Adjustments	-10.565	-0.427	-18.038	0.460	Summary of Adjustments					Non-Pay Inflation Savings	-0.060				FY04 SBIR	-1.242				Programmatic/Other Adjustments	0.000	-0.427	-18.038	0.460	Cancelled Account Liability	-0.163				Omnibus Reprogramming	-9.100				Subtotal	-10.565	-0.427	-18.038	0.460
Funding:	FY 2004	FY 2005	FY 2006	FY 2007																																																							
FY 2005 President's Budget	64.137	44.180	40.232	45.991																																																							
FY 2006 President's Budget	53.572	43.753	22.194	46.451																																																							
Total Adjustments	-10.565	-0.427	-18.038	0.460																																																							
Summary of Adjustments																																																											
Non-Pay Inflation Savings	-0.060																																																										
FY04 SBIR	-1.242																																																										
Programmatic/Other Adjustments	0.000	-0.427	-18.038	0.460																																																							
Cancelled Account Liability	-0.163																																																										
Omnibus Reprogramming	-9.100																																																										
Subtotal	-10.565	-0.427	-18.038	0.460																																																							

R-1 SHOPPING LIST - Item No.

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT NUMBER AND NAME 0604567N Ship Contract Design / LFT&E			PROJECT NUMBER AND NAME 2465 LHA(R)				

D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
SCN 304100 LHA(R) Flight 0	0.0	149.4	150.4	1,215.1	1,233.5	0.0	0.0	0.0	0.0	2,748.4
SCN 304100 LHA(R) Flight 0 (Outfitting)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCN 304100 LHA(R) Flight 1	0.0	0.0	0.0	0.0	0.0	0.0	1,994.5	1,788.4	0.0	3,782.9

E. ACQUISITION STRATEGY:

Preliminary design for Flight 0 will be conducted 3QFY04 through 4QFY05. Milestone B is currently scheduled for 1QFY06. Construction contract award is planned 1QFY07 for Flight 0.

F. MAJOR PERFORMERS:

NSWC, Carderock (Bethesda, MD) - Funds have been provided for preliminary and contract design. Specific efforts include ship design management, design integration, hull systems engineering, machinery control, human system integration, mission systems and total ship survivability analysis for preliminary and contract design. Additionally, the activity will function as Live Fire Test and Evaluation (LFT&E) manager, perform/conduct surrogate tests and develop survivability analysis.

CSC Corp. - Funds have been provided for preliminary and contract design. Specific efforts include ship design management, design integration, hull systems engineering, machinery control, human system integration, mission systems and total ship survivability analysis for preliminary and contract design.

NGSS - Funds have been provided for preliminary and contract design including ship design management, design integration, hull systems engineering, machinery control, human system integration, mission systems and total ship survivability analysis for preliminary and contract design.

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: February 2005					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME								
RDT&E, N / BA-5			0604567N Ship Contract Design / LFT&E				2465 LHA(R)								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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	
Primary Hardware Development															
Ancillary Hardware Development															
Component Development															
Ship Design	Various	Various	0.000	31.625	12/03	20.729	10/04	10.790	10/05	25.143	10/06				
Ship Suitability															
Systems Engineering	Various	Various	0.000	9.047	12/03	17.490	10/04	7.583	10/05	18.536	10/06				
Training Development															
Licenses															
Tooling															
GFE															
Award Fees															
Subtotal Product Development			0.000	40.672		38.219		18.373		43.679					
Remarks:															
Development Support															
Software Development															
Training Development															
Integrated Logistics Support															
Configuration Management															
Technical Data															
GFE															
Award Fees															
Subtotal Support			0.000	0.000		0.000		0.000		0.000					
Remarks:															

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: February 2005					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME								
RDT&E, N / BA-5			0604567N Ship Contract Design / LFT&E				2465 LHA(R)								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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															
Operational Test & Evaluation	Reimb.	NSWC/Carderock				0.438	10/04	0.473	10/05	0.401	10/06				
Live Fire Test & Evaluation	Reimb.	NSWC/Carderock		12.900	12/03	5.096	10/04	3.348	10/05	2.371	10/06				
Test Assets															
Tooling															
GFE															
Award Fees															
Subtotal T&E			0.000	12.900		5.534		3.821		2.772					
Remarks:															
Contractor Engineering Support															
Government Engineering Support															
Program Management Support															
Travel															
Labor (Research Personnel)															
SBIR Assessment															
Subtotal Management			0.000	0.000		0.000		0.000		0.000					
Remarks:															
Total Cost			0.000	53.572		43.753		22.194		46.451					
Remarks:															

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:				February 2005							
APPROPRIATION/BUDGET ACTIVITY									PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME														
RDT&E, N / BA-5									0604567N Ship Contract Design / LFT&E												2465 LHA(R)														
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
Acquisition Milestones																																			
Overarching Integrated Product Team Review						△									△																				
Preliminary Design - Flight 0			△					△																											
Detailed Design - Flight 0									△												△														
Feasibility Studies - Flight 1							△		△																										
Trade Studies and Point Design - Flight 1					△		△																												
Milestones									△		Milestone B										△		Program Review												
Preliminary/ Contract Design - Flight 1										△											△														
Test & Evaluation Milestones																																			
Flt 0/1 Surrogate Testing		△				△																													
Production Milestones																																			
Shipbuilding Contract Award - Flight 0													△																						
Lay Keel - Flight 0																			△																

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 47 of 70)

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification					DATE: FEBRUARY 2005					
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA5	PROGRAM ELEMENT NUMBER AND NAME 0604567N Ship Contract Design / LFT&E	PROJECT NUMBER AND NAME 9389/LHD 8 Performance Based Logisitics (PBL)								
B. Accomplishments/Planned Program										
	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11		
Accomplishments/Effort/Subtotal Cost	1.347	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
RDT&E Articles Quantity										
<p>Establish and operate a PBL Working Group to develop and implement the PBL strategy and plan for LHD 8. LHD 8 Propulsion, Power Generation, and Power Management systems are comprised primarily of new development items and Commerical Off The Shelf (COTS) items that are not presently supported in the Navy's existing logistics support system infrastructure. The integrated logistics support requirements for these systems including material, technical documentation, training, maintenance, system engineering and life cycle support processes and deliverables that must be in place at the time of the LHD 8 delivery to ensure adequate post-delivery and life cycle support of the vessel must be adequately defined.</p>										
	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11		
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
RDT&E Articles Quantity										
	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11		
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
RDT&E Articles Quantity										

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604567N Ship Contract Design / LFT&E	PROJECT NUMBER AND NAME 9389/LHD 8 Performance Based Logistics (PBL)

C. PROGRAM CHANGE SUMMARY:

	FY 2004	FY 2005	FY 2006	FY 2007
Funding:				
FY05 President's Budget	1.384	0.000	0.000	0.000
FY06 President's Budget	1.347	0.000	0.000	0.000
Total Adjustments	-0.037	0.000	0.000	0.000
Summary of Adjustments				
Non-Pay Inflation Savings	-0.001			
FY04 SBIR	-0.036			
Subtotal	-0.037	0.000	0.000	0.000

Schedule:

Not Applicable

Technical:

Not Applicable.

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005																						
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604567N Ship Contract Design / LFT&E			PROJECT NUMBER AND NAME 9389/LHD 8 Performance Based Logistics (PBL)																								
<p>D. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Line Item No. & Name</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2004</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;">Total Cost</th> </tr> </thead> <tbody> <tr> <td>SCN 303500 LHD 8 *</td> <td style="text-align: right;">351.7</td> <td style="text-align: right;">235.1</td> <td style="text-align: right;">197.8</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">784.6</td> </tr> </tbody> </table> <p>*LHD 8 is an incrementally funded program with funding in FY99-06.</p> <p>E. ACQUISITION STRATEGY:</p> <p>The acquisition strategy for this effort includes participation from both Government activities and industry (Northrop Grumman Ship Systems (NGSS)).</p> <p>F. MAJOR PERFORMERS:</p> <p>Northrop Grumman Ship Systems (NGSS)</p>										Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Total Cost	SCN 303500 LHD 8 *	351.7	235.1	197.8	0	0	0	0	0	784.6
Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Total Cost																				
SCN 303500 LHD 8 *	351.7	235.1	197.8	0	0	0	0	0	784.6																				

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)										DATE: FEBRUARY 2005				
APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5			PROGRAM ELEMENT 0604567N Ship Contract Design / LFT&E			PROJECT NUMBER AND NAME 9389/LHD 8 Performance Based Logistics (PBL)								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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
Primary Hardware Development														
Ancillary Hardware Development														
Component Development														
Ship Design														
Ship Suitability														
Systems Engineering														
Training Development														
Licenses														
Tooling														
GFE														
Award Fees														
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Development Support														
Software Development														
Training Development														
Integrated Logistics Support	Various	NGSS/Gov't Activities		1.347	Various								1.347	0.970
Configuration Management														
Technical Data														
GFE														
Award Fees														
Subtotal Support			0.000	1.347		0.000		0.000		0.000		0.000	1.347	
Remarks: Modification to existing shipbuilding contract to NGSS														

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RDTE Budget Item Justification
(Exhibit R-2, page 51 of 70)

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1) (continued)										DATE: FEBRUARY 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDT&E, N / BA-5			0604567N Ship Contract Design / LFT&E			9389/LHD 8 Performance Based Logistics (PBL)								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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														
Operational Test & Evaluation														
Live Fire Test & Evaluation														
Test Assets														
Tooling														
GFE														
Awrad Fees														
Subtotal T&E			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Contractor Engineering Support														
Government Engineering Support														
Program Management Support														
Travel														
Transportation														
SBIR Assessment														
GFE														
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Total Cost			0.000	1.347		0.000		0.000		0.000		0.000	1.347	

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 52 of 70)

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R4, Schedule Profile																								Date: FEBRUARY 2005								
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME																	PROJECT NUMBER AND NAME										
RDT&E, N / BA-5					0604567N Ship Contract Design / LFT&E																	9389/LHD 8 Performance Based Logisitics (PBL)										
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones																																
Test & Evaluation Milestones																																
Production Milestones																																
Establish Working Group	△	△																														
Initiate Plan/Req Determination		△	—————						△																							
Final Report										△																						
Deliveries																																

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

[illegible]

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RDTEB Budget Item Justification
(Exhibit R-2, page 54 of 70)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N				PROJECT NUMBER AND NAME 9578 Integrated Modernization Environment			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.000	1.970	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty								
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project will develop an NMCI compatible Integrated Modernization Environment (IME) with a real time information sharing capability to improve the ability to manage program information and facilitate collaboration engineering. Post implementation Planning efforts in developing future system upgrade and maintenance requirements after completion of the initial phase will also be completed.								

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RDTE Budget Item Justification
(Exhibit R-2, page 55 of 70)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N	PROJECT NUMBER AND NAME 9578 Integrated Modernization Environment		
B. Accomplishments/Planned Program				
Cruiser Modernization Program	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	1.970	0.000	0.000
RDT&E Articles Quantity				
<p>Develop a web based IME, define initial configuration requirements, configure Integrated Modernization Environment and develop a long-term implementation plan. Initial CG Modernization populated web based IME will be accomplished before the end of FY 07.</p>				

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: Feburary 2005																																									
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / EBA-5	PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N	PROJECT NUMBER AND NAME 9578 Integrated Modernization Environment																																										
<p>C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%; text-align: right;">FY 2004</th> <th style="width: 10%; text-align: right;">FY 2005</th> <th style="width: 10%; text-align: right;">FY 2006</th> <th style="width: 10%; text-align: right;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget:</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;">0.000</td> </tr> <tr> <td>Current President's Budget:</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">1.970</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black;">1.970</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td style="padding-left: 20px;">Undistributed Congressional Reductions</td> <td></td> <td style="text-align: right;">-0.030</td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Congressional Add</td> <td></td> <td style="text-align: right;">2.000</td> <td></td> <td></td> </tr> <tr> <td style="padding-top: 10px;">Subtotal</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black;">1.970</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> </tr> </tbody> </table> <p>Schedule:</p> <p>CG Modernization IME efforts are funded in RDT&E,N and have been scheduled consistent with the lead ship, CG52, Depot Modernization Period that will be executed in FY 08.</p> <p>Technical:</p> <p>Not Applicable.</p>						FY 2004	FY 2005	FY 2006	FY 2007	Previous President's Budget:	0.000	0.000	0.000	0.000	Current President's Budget:	0.000	1.970	0.000	0.000	Total Adjustments	0.000	1.970	0.000	0.000	Summary of Adjustments					Undistributed Congressional Reductions		-0.030			Congressional Add		2.000			Subtotal	0.000	1.970	0.000	0.000
	FY 2004	FY 2005	FY 2006	FY 2007																																								
Previous President's Budget:	0.000	0.000	0.000	0.000																																								
Current President's Budget:	0.000	1.970	0.000	0.000																																								
Total Adjustments	0.000	1.970	0.000	0.000																																								
Summary of Adjustments																																												
Undistributed Congressional Reductions		-0.030																																										
Congressional Add		2.000																																										
Subtotal	0.000	1.970	0.000	0.000																																								

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: Feburary 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT NUMBER AND NAME Ship Contract Design/LFT&E 0604567N			PROJECT NUMBER AND NAME 9578 Integrated Modernization Environment				

D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
OPN 096000 CG Modernization	42	0	135	238	296	298	399	475	900	2,783
WPN 422300 CG Modernization	9	0	5	16	21	45	47	48	300	492
O&MN 1B5B CG Modernization	8	0	44	141	150	137	130	128	1,800	2,538
Sea Base Connector										
RDT&E 0603564 3127	0.000	0.000	14.415	13.849	13.569	0.000	0.000	0.000	0.000	41.833
RDT&E 0603564 3133	0.000	0.000	0.000	0.000	18.156	22.395	8.816	1.719	0.000	51.086
SCN 0204411N 5112	0.000	0.000	0.000	0.000	0.000	0.000	99.088	209.027	0.000	308.115

E. ACQUISITION STRATEGY:

N/A

F. MAJOR PERFORMERS:

N/A

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)												DATE: Feburary 2005		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDTE&E, N / BA-5			Ship Contract Design/LFT&E 0604567N			9578 Integrated Modernization Environment								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)											DATE: Feburary 2005			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDT&E, N / BA-5			Ship Contract Design/LFT&E 0604567N			9578 Integrated Modernization Environment								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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
Integrated Modernization Environment	MISC	TBD		0.000		1.970	03/05	0.000		0.000		0.000	1.970	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal			0.000	0.000		1.970		0.000		0.000		0.000	1.970	
Remarks:														
													0.000	
													0.000	
													0.000	
													0.000	
													0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Total Cost			0.000	0.000		1.970		0.000		0.000		0.000	1.970	
Remarks:														

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:				Feburary 2005				
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT NUMBER AND NAME								PROJECT NUMBER AND NAME																				
RDT&E, N / BA-5				Ship Contract Design/LFT&E 0604567N								9578 Integrated Modernization Environment																				
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones																																
Test & Evaluation Milestones																																
Develop IME																																
Configure IME																																
Write Implementation Plan																																
Populate Data																																
Lead Ship DMP Start																																
Production Milestones																																
CG Modernization																																
System Procurement Awards																																
Deliveries																																

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

[illegible]

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 62 of 70)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification				FY 2006/2007 PRESIDENT'S BUDGET SUBMISSION (\$M)		DATE: Feb 2005			
APPROPRIATION/BUDGET ACTIVITY RDTE NAVY		PROGRAM ELEMENT NUMBER AND NAME PE 0604567N (U)SHIP CONTRACT DESIGN/LIVE FIRE T&E				PROJECT NUMBER AND NAME 3134 Intratheater Connectors (Contract Design)			
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	1.941	2.247	13.899	7.984	6.873	1.378
RDT&E Articles Qty									
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: 3134 - concept studies in support of intratheater connectors. These ship systems will be capable of self-deploying to the theater of operations, provide the air and surface means to move forces and supplies over operational distances within a theater. Intratheater connectors provide the JFC a mobility asset that enables rapid force closure to the sea base from advanced bases, movement of logistics, ship-to-ship and ship-to-shore replenishment, and in appropriate threat environments, the maneuver of forces to the shore.</p> <p>The primary mission will be to provide logistical military lift from the advanced base to the sea base. The secondary missions will include the ability to provide logistical military lift from the seabase to the shore (either an austere port facility or possibly an unimproved beach) , and movement within the seabase.</p> <p>The Intratheater connector will have the following characteristics:</p> <ul style="list-style-type: none">* Moderate payload capacity (100's to 1,000's of short tons)* Shallow draft* Self deploying and sustaining for short periods* Cross-theater laden ranges <p>Beachable and non-beachable options will be investigated.</p>									

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification		FY 2006/2007 PRESIDENT'S BUDGET SUBMISSION (\$M)		DATE: Feb 2005	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME		PROJECT NUMBER AND NAME	
RDTE NAVY		PE 0604567N (U)SHIP CONTRACT DESIGN/LIVE FIRE T&E		3134 Intratheater Connectors (Contract Design)	
B. Accomplishments/Planned Program					
	FY 04	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	0.000	0.000	1.941	2.247	
RDT&E Articles Quantity					
Program Acquisition Efforts for Non-Beachable Intratheater Connector - including pre-acquisition studies, Initial Capabilities Document development, initial shipbuilder downselect, Capability Development Document preparation, and milestone A preparation.					
	FY 04	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost					
RDT&E Articles Quantity					
	FY 04	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost					
RDT&E Articles Quantity					
	FY 04	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost					
RDT&E Articles Quantity					
	FY 04	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost					
RDT&E Articles Quantity					
Total	0.000	0.000	1.941	2.247	

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification		FY 2006/2007 PRESIDENT'S BUDGET SUBMISSION (\$M)				DATE: Feb 2005	
APPROPRIATION/BUDGET ACTIVITY RDTE NAVY		PROGRAM ELEMENT NUMBER AND NAME PE 0604567N (U)SHIP CONTRACT DESIGN/LIVE FIRE T&E			PROJECT NUMBER AND NAME 3134 Intratheater Connectors (Contract Design)		
C. PROGRAM CHANGE SUMMARY:							
Funding:		FY 2004	FY 2005	FY 2006	FY 2007		
FY05 President's Budget		0.000	0.000	0.000	0.000		
FY06President's Budget		<u>0.000</u>	<u>0.000</u>	<u>1.941</u>	<u>2.247</u>		
Total Adjustments		0.000	0.000	1.941	2.247		
Programmatic Adjustments							
ADJUSTMENT TO ADD INTRATHEATER CONNECTORS		<u>0.000</u>	<u>0.000</u>	<u>1.941</u>	<u>2.247</u>		
Total Adjustment		0.000	0.000	1.941	2.247		
Schedule:							
Not Applicable							
Technical:							
Not Applicable							

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification									FY 2006/2007 PRESIDENT'S BUDGET SUBMISSION (\$M)		DATE:	
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME					
RDTE NAVY			PE 0604567N (U)SHIP CONTRACT DESIGN/LIVE FIRE T&E				3134 Intratheater Connectors (Contract Design)					
D. Other Program Funding Summary			FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total Cost
PE 0204228N SCN/BLI3043 Intratheater Connector Surface Support								204.622	176.873	180.609	TBD	562.104
(U) Related RDT&E:												
PE 0603564N/SHIP PRELIM DESIGN & FEASIBILITY STUDIES/3131 Intratheater Connectors			0.000	0.000	4.848	11.850	5.094	3.983	1.824	2.540	0.000	30.139
E. Acquisition Strategy:												
Feasibility studies will be conducted to determine the best designs to meet new Navy requirements.												
F. Major Performers:												
Field Activities & Locations - Work Performed												
NSWC, Carderock, MD - Concept development and engineering support												
NSWC, Panama City, FL - Concept development												
NFESC Pt Hueneme CA - Concept development												
SPAWAR Systems Center, Charleston SC - Concept development and engineering support												
NAVAIR Pax River, MD - Concept development and engineering support												
Office of Naval Research, Arlington, VA - Concept Development												
Contractors & Locations - Work Performed												
CSC, Washington, DC - Engineering Support												
Universities & Locations - Work Performed												

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 67 of 70)

Exhibit R-3 Cost Analysis (page 2)								DATE:						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT					PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			PE 0604567N (U)SHIP CONTRACT DESIGN/LIVE FIRE T&E					3134 Intratheater Connectors (Contract Design)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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
Primary Hardware Development													0.000	
Ancillary Hardware Development													0.000	
Aircraft Integration													0.000	
Ship Integration													0.000	
Ship Suitability													0.000	
Systems Engineering													0.000	
Training Development													0.000	
Licenses													0.000	
Tooling													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Development Support	Various	Various						0.700		0.000			0.700	
Software Development													0.000	
Integrated Logistics Support													0.000	
Configuration Management													0.000	
Technical Data								0.000					0.000	
Studies & Analyses													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal Support			0.000	0.000		0.000		0.700		0.000		0.000	0.700	
R-1 SHOPPING LIST - Item No. 116														
Remarks:														

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)								DATE: Feb 2005						
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-5			PROGRAM ELEMENT PE 0603564N/SHIP PRELIM DESIGN & FEASIBILITY STUDIES					PROJECT NUMBER AND NAME 3134 Intratheater Connectors (Contract Design)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	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													0.000	
Operational Test & Evaluation													0.000	
Live Fire Test & Evaluation													0.000	
Test Assets													0.000	
Tooling													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
Contractor Engineering Support	MAC	CSC						0.000		0.400	1Q		0.400	
Government Engineering Support	WX	Various						0.000		0.400	1Q		0.400	
Program management Support	MAC	CSC						1.224	1Q	1.432	1Q		2.656	
Travel	PD	NAVSEA						0.017		0.015			0.032	
Transportation													0.000	
SBIR Assessment													0.000	
Subtotal Management			0.000	0.000		0.000		1.241		2.247		0.000	3.488	
Remarks:														
Total Cost			0.000	0.000		0.000		1.941		2.247		0.000	4.188	
Remarks:														

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:				Feb 2005				
APPROPRIATION/BUDGET ACTIVITY								PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME												
RDT&E, N / BA-5								PE 0604567N (U)SHIP CONTRACT DESIGN/LIVE FIRE T&E												3134 Intratheater Connectors (Contract Design)												
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones																			△ MSB													
DD&C Contract Award																						△										
First Follow Ship																											△					
Second Follow Ship																														△		

R-1 SHOPPING LIST - Item No. 116

* Not required for Budget Activities 1, 2, 3, and 6

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: Feb 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&BA-5	PROGRAM ELEMENT PE 0604567N (U)SHIP CONTRACT DESIGN/LIVE FIRE T&E				PROJECT NUMBER AND NAME 3134 Intratheater Connectors (Contract Design)			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
AoA Completion				2Q				
Milestone B					3Q			
Contract Award						2Q		

R-1 SHOPPING LIST - Item No. 116

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 70 of 70)