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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2013 Navy **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	157.828	121.089	196.737	-	196.737	184.183	95.939	52.980	51.997	Continuing	Continuing
1803: <i>Ship Contract Design</i>	13.882	18.642	17.876	-	17.876	22.189	19.724	18.150	18.971	Continuing	Continuing
2465: <i>LHA(R) FLT Design and Total Ship Integration</i>	10.031	26.702	33.729	-	33.729	31.202	17.937	6.550	6.753	Continuing	Continuing
3133: <i>Ship to Shore Connectors Contract Design</i>	19.896	2.468	0.876	-	0.876	0.070	3.793	3.600	3.664	Continuing	Continuing
3137: <i>SSC Construction</i>	77.889	52.466	130.394	-	130.394	111.076	34.134	4.373	2.810	Continuing	Continuing
3179: <i>CVN-79 Total Ship Integration</i>	20.538	19.166	11.187	-	11.187	15.978	16.567	15.224	15.489	Continuing	Continuing
4007: <i>CVN 21 LFT&amp;E</i>	2.658	1.645	2.675	-	2.675	3.668	3.784	5.083	4.310	Continuing	Continuing
9999: <i>Congressional Adds</i>	12.934	-	-	-	-	-	-	-	-	0.000	12.934

**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 (LFT&E) 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy			DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		PE 0604567N: Ship Contract Design/ Live Fire T&E			
B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	153.686	161.099	190.301	-	190.301
Current President's Budget	157.828	121.089	196.737	-	196.737
Total Adjustments	4.142	-40.010	6.436	-	6.436
• Congressional General Reductions	-	-0.010			
• Congressional Directed Reductions	-	-40.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-3.973	-			
• SBIR/STTR Transfer	-4.021	-			
• Program Adjustments	-	-	6.577	-	6.577
• Rate/Misc Adjustments	-	-	-0.141	-	-0.141
• Congressional General Reductions	-0.864	-	-	-	-
Adjustments					
• Congressional Add Adjustments	13.000	-	-	-	-
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 9999: Congressional Adds				FY 2011	FY 2012
Congressional Add: DD(X) FSST				12.934	-
Congressional Add Subtotals for Project: 9999				12.934	-
Congressional Add Totals for all Projects				12.934	-
Change Summary Explanation					
Decreased funding in FY 13 to reflect delay in CVN 80 total ship integration requirements. Added funding in FY 13 to properly price the first Ship to Shore Connector (SSC) and reflect the Department's decision to fund the second SSC in RDTEN (versus SCN) to support IOT&E testing.					

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 1803: Ship Contract Design			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
1803: Ship Contract Design	13.882	18.642	17.876	-	17.876	22.189	19.724	18.150	18.971	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
CG and DDG Modernization: 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 planning yard to make a sound estimate of cost and schedule. It also serves as the technical definition from which the planning yard develops the detailed design and testing package required to build and test the ship. 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. 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 supports the development of design methodologies/tools which facilitate and optimize the transition from ship design documents to ship alterations. This project also supports ship survivability studies, superstructure integrity analysis, developmental and operational testing, gun weapon system software integration and next generation Machinery Control System (MCS) software integration.											
DON Energy Initiative - Hybrid Electric Drive This project includes an increment for the DON Energy Initiative related to the DDG 51 Hybrid Electric Drive to reduce DDG 51 Class ship energy consumption and increase mission effectiveness through longer time on station. This project supports propulsion at low ship speeds without the need for LM 2500 main engines. Fuel savings from the Hybrid Electric Drive system will be achieved by utilizing fewer gas turbines for propulsion and ship service power generation while also loading gas turbines generators at a more efficient operating load. Provides critical foundation for SECNAV and CNO objectives to achieve greater Navy-wide energy security.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: Ship Contract Design  Articles:								1.236	4.074	4.826	
								0	0	0	
FY 2011 Accomplishments: For Cruisers & DDGs, specific efforts include, but are not limited to Technical Data Package development, Detailed Design Products, Engineering Analysis, operational testing, feasibility studies, and topside analysis, related to the next generation Advanced Capability Build (ACB-12).											
FY 2012 Plans:											

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E	PROJECT 1803: Ship Contract Design		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
For DDGs, specific efforts include, but are not limited to Technical Data Package development, Detailed Design Products, Engineering Analysis, feasibility studies, and topside analysis, related to the next generation Advanced Capability Build, and next generation MCS software integration.				
For CG's, specific efforts include, but are not limited to, developmental and operational test event planning, feasibility studies, and detailed design products to facilitate the CG class reaching expected service life.				
FY 2013 Plans: For DDGs, specific efforts include, but are not limited to Technical Data Package development, Detailed Design Products, Engineering Analysis, developmental and operational test events and planning, feasibility studies, and topside analysis, related to the next generation Advanced Capability Build and next generation MCS software integration.				
For CG's, specific efforts include aluminum cracking studies, superstructure repair planning, sustainment studies and new alteration development to ensure CGs are able to reach expected service life.				
Title: DON Energy Initiative		12.646	14.568	13.050
Articles:		0	0	2
Description: Beginning in FY 2011, this project includes an increment for the DON Energy Initiative related to the DDG 51 Hybrid Electric Drive (HED) to reduce DDG 51 Class ship energy consumption and increase mission effectiveness through longer time on station.				
FY 2011 Accomplishments: Completion of HED Proof of Concept (POC) land based testing, trade study, spec development, RFP release, and source selection activities.				
FY 2012 Plans: Contract award for detailed design including Machinery Control System (MCS) integration and long-lead-time-material for the EDMs.				
FY 2013 Plans: Two EDMs further MCS integration development, initiate environmental qualification testing, initiate training, Integrated Logistic Support (ILS), and ship integration design development.				
Accomplishments/Planned Programs Subtotals		13.882	18.642	17.876

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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPN 0900: DDG Modernization	288.118	117.522	452.371	0.000	452.371	288.134	516.908	469.812	529.385	Continuing	Continuing
• OPN 0960: CG Modernization	348.934	573.349	101.000	0.000	101.000	22.000	79.000	0.000	0.000	0.000	1,440.994
• WPN 4223: CG Modernization	50.347	50.013	1.591	0.000	1.591	2.044	0.000	0.000	0.000	0.000	155.064
• OPN 0140: Hybrid Electric Drive	0.000	0.000	0.000	0.000	0.000	17.000	46.000	47.000	47.846	Continuing	Continuing
D. Acquisition Strategy											
A full and open competition with a Fixed Price Incentive Fee Contract awarded for the development, qualification, and delivery of the Engineering Development Models (EDM) Hybrid Electric Drive (HED) Electric Propulsion System (EPS), and the initial HED EPS production shipsets for the DDG 51 Fleet Modernization Program.											
E. Performance Metrics											
CG/DDG Modernization:											
Aluminum sensitization study to determine the lifetime until sensitization for aluminum alloys and stress and buckling analysis of the CG 52 Class ship structure, and develop proposed fatigue fixes in the high stress areas to produce a technical report with modifications or improvements to the ship that may be necessary to preclude cracking in the areas of concern. Evaluation of composite patch and development of composite patch installation procedures as a method for repairing cracks. Development of ultrasonic impact treatment guidance as a method for repairing cracks. Evaluation of different coating that can prevent cracking and different aluminum alloys that are sensitization resistant. DT/OT for ACB12/TI12 DDGM.											
Additional efforts for DDG Mod include design and development for next generation MCS software integration.											
Hybrid Electric Drive (HED) DON Energy Initiative: Successful completion of Engineering Development Model (EDM) and complete fielding of First Article (FA) including contract award, design, manufacturing, and delivery. Successful completion of Factory Acceptance Test (FAT) and performance testing in Land Based Engineering Site (LBES). Commencement, completion, delivery and installation of Low Rate Initial Production (LRIP) units. Achieve fuel efficiency and increase on-station time.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				PE 0604567N: Ship Contract Design/ Live Fire T&E				1803: Ship Contract Design					
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CG Mod Electronics Systems Eng	C/CPAF	Lockheed:Martin, Moorestown, NJ	17.413	-		-		-		-	Continuing	Continuing	Continuing
DON Energy Initiative - OEM	C/FPIF	TBD:TBD	9.746	13.568	Apr 2012	12.550	Apr 2013	-		12.550	Continuing	Continuing	Continuing
DON Energy Initiative	WR	NSWC/SSES:Philadelphia, PA	2.400	0.500	Apr 2012	0.500	Dec 2012	-		0.500	0.000	3.400	
Subtotal			29.559	14.068		13.050		-		13.050			
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DDG/CGM Program / Engineering Spt	WR	NSWC/DD:Dahlgren, VA	4.016	1.330	Feb 2012	-		-		-	Continuing	Continuing	Continuing
DDGM Program/ Engineering Spt / HED	Various	SUPSHIP/BATH:Bath, ME	2.011	-		0.216	Dec 2012	-		0.216	Continuing	Continuing	Continuing
DDG/CGM Program / Engineering Spt	C/CPAF	CSC/BAE:Hampton, VA	4.713	-		-		-		-	Continuing	Continuing	Continuing
DDG/CGM Program / Engineering Spt	WR	SPAWARSSYSCEN:Charleston, SC	1.397	-		0.100	Dec 2012	-		0.100	Continuing	Continuing	Continuing
CGM Program / Engineering Spt	WR	NRL:Washington, DC	0.617	-		-		-		-	Continuing	Continuing	Continuing
CGM Program / Engineering Spt	C/CPAF	JJMA/ALION:Washington, DC	2.428	0.519	Feb 2012	-		-		-	Continuing	Continuing	Continuing
DDG/CGM Program / Engineering Spt	WR	NSWC/PHD:Port Hueneme, CA	1.560	1.329	Feb 2012	-		-		-	Continuing	Continuing	Continuing
DDG/CGM Program / Engineering Spt	WR	NSWC/BETHESDA:Bethesda, MD	2.690	0.448	Feb 2012	1.780	Dec 2012	-		1.780	Continuing	Continuing	Continuing
CGM Program / Engineering Spt	Various	SUPSHIP/PASCAGOULA:Pascagoula, MS	3.437	0.448	Feb 2012	0.100	Dec 2012	-		0.100	Continuing	Continuing	Continuing

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<b>Support (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
CGM/DDG Program / Engineering Spt	WR	COMOPTEVFOR:Norfolk, VA	0.030	-		2.130	Dec 2012	-		2.130	Continuing	Continuing	Continuing
DDG/CGM/HED Program / Engineering Spt	WR	NSWC/ SSES:Philadelphia, PA	4.400	0.500	Feb 2012	0.500	Dec 2012	-		0.500	Continuing	Continuing	Continuing
CGM Program / Engineering Spt	C/CPAF	L3:New York, NY	1.048	-		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			28.347	4.574		4.826		-		4.826			
<b>Management Services (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Defense Acquisition Workforce	Various	Not Specified:Not Specified	0.023	-		-		-		-	0.000	0.023	
<b>Subtotal</b>			0.023	-		-		-		-	0.000	0.023	
			<b>Total Prior Years Cost</b>	<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			57.929	18.642		17.876		-		17.876			
<b>Remarks</b>													

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>	PROJECT 1803: <i>Ship Contract Design</i>

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>	<b>PROJECT</b> 1803: <i>Ship Contract Design</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 1803</b>				
CGM Baseline 2 Mod Design	1	2011	1	2013
CGM Baseline 3 Mod Design	1	2011	2	2013
CG Class Design	1	2012	4	2015
DDG Technical Insertion 12 Mod Design	1	2011	4	2012
DDG Technical Insertion 16 Mod Design	1	2012	3	2017
Hybrid Electric Drive Contract Design	3	2012	4	2017
Hybrid Electric Drive Engineering Development Model Contract Award	3	2013	3	2013
Hybrid Electric Drive Engineering Development Model Delivery	3	2014	3	2014
CGM Deliveries (CG 54,56 ,57,55,62,60,59,71)	2	2011	2	2016
DDGM Deliveries (DDG53,65,52,51,69,57,55,54)	3	2013	3	2017
Hybrid Electric Drive Contract Design Award	3	2012	3	2012

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				PE 0604567N: Ship Contract Design/ Live Fire T&E				2465: LHA(R) FLT Design and Total Ship Integration			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2465: LHA(R) FLT Design and Total Ship Integration	10.031	26.702	33.729	-	33.729	31.202	17.937	6.550	6.753	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**A. Mission Description and Budget Item Justification**

This project provides the contract design, development and testing efforts for the Amphibious Assault Ship Replacement Program LHA(R). The LHA (R) is a ship construction program designed to: (1) provide a functional replacement for the Amphibious Assault Ships which begin reaching the end of their extended service lives after FY11 (2) be a key platform in the Amphibious Readiness Group (ARG) of the future and (3) provide for an affordable and sustainable amphibious ship development program. LHA(R) ships will provide forward presence and power projection as an integral part of Joint, inter-agency, and multi-national maritime expeditionary forces. Additionally, LHA(R) will be designed to operate for sustained periods in transit to and operations in an Amphibious Objective Area to include the embarkation, deployment, and landing of a Marine Landing Force in an assault by helicopters and tilt rotors (MV-22) supported by Joint Strike Fighters (F-35B).

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

	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> LHA (R) FLT Design and Total Ship Integration - LHA 6	4.600	2.508	4.319
<b>Articles:</b>	0	0	0
<b>FY 2011 Accomplishments:</b> LHA 6 Continued Development Testing (DT) and Operational Test and Evaluation (OT&E) preparations. LHA 6 Continued updating the Live Fire Test and Evaluation (LFT&E) Management Plan. LHA 6 Finalized the Initial Vulnerability Assessment Report (VAR). LHA 6 Continued updating the Test and Evaluation Master Plan (TEMP). LHA 6 Continued evaluating the interoperability data supporting Key Performance Parameters (KPP).			
<b>FY 2012 Plans:</b> LHA 6 Continue Development Testing (DT) and Operational Test and Evaluation (OT&E) preparations. LHA 6 Initiate Final Vulnerability Assessment Report (VAR). LHA 6 Continue updating the Test and Evaluation Master Plan (TEMP). LHA 6 Continue evaluating the interoperability data supporting Key Performance Parameters (KPP). LHA 6 Initiate Total Ship Survivability Trial (TSST) preparations.			
<b>FY 2013 Plans:</b> LHA 6 Continue Development Testing (DT)and Operational Test and Evaluation (OT&E) preparations. LHA 6 Continue Final Vulnerability Assessment Report (VAR). LHA 6 Continue updating the Test and Evaluation Master Plan (TEMP).			

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy							DATE: February 2012				
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)			R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E			PROJECT 2465: LHA(R) FLT Design and Total Ship Integration					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2011	FY 2012	FY 2013		
LHA 6 Continue evaluating the interoperability data supporting Key Performance Parameters (KPP). LHA 6 Continue Total Ship Survivability Trial (TSST) preparations.											
Title: LHA (R) FLT Design and Total Ship Integration - LHA 8							5.431	24.194	29.410		
Articles:							0	0	0		
FY 2011 Accomplishments: LHA 8 Began Trade Studies and Preliminary Design efforts. LHA 8 Began Capability Development Document (CDD) and Concepts of Operations (CONOPS) preparations.											
FY 2012 Plans: LHA 8 Continue Preliminary Design efforts. LHA 8 Finalize Capability Development Document (CDD) and Concepts of Operations (CONOPS)preparations. LHA 8 Initiate development of Milestone Documents. LHA 8 Initiate Operational Test and Evaluation (OT&E) preparations.											
FY 2013 Plans: LHA 8 Complete Preliminary Design. LHA 8 Initiate Contract Design. LHA 8 Continue development of Milestone Documents. LHA 8 Continue Operational Test and Evaluation (OT&E) preparations. LHA (R) Concept studies including Modeling and Simulation Study for Marine Corps.											
Accomplishments/Planned Programs Subtotals							10.031	26.702	33.729		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• SCN/3041: LHA(R) Ships	937.630	1,999.191	0.000	0.000	0.000	0.000	78.500	240.353	2,097.171	2,001.976	10,698.721
• SCN/5300: Completion of Prior Year Shipbuilding Programs	0.000	0.000	156.685	0.000	156.685	0.000	0.000	0.000	0.000	0.000	170.995
D. Acquisition Strategy											
Acquisition strategy signed February 7, 2005 approved strategy for sole source to Northrop Grumman Shipbuilding (NGSB) to incorporate previous LHD engineering, design and producibility lessons-learned into LHA(R). Advanced Procurement (AP) contract for Long Lead-Time Material (LLTM) procurement and engineering support awarded July 05 with continuation of these efforts in FY06 prior to award of Detail Design and Construction (DD&C)contract on 1 June 2007.The Advance Procurement contract was subsumed by the FPI DD&C contract.											

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Navy		<b>DATE:</b> February 2012
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<p>USD (AT&amp;L) signed ADM on 31 March 2010 to authorize the Navy to spend Advance Procurement funds for the LHA 7. An Advance Procurement (AP) contract was awarded to Northrop Grumman Shipbuilding (NGSB) on 30 June 2010. RFP for the LHA 7 DD&amp;C contract was issued on 20 July 2010.</p> <p><b><u>E. Performance Metrics</u></b></p> <p>Successfully achieve Initial Operational Capability, successfully complete Operational Test and Milestone Reviews.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E					PROJECT 2465: LHA(R) FLT Design and Total Ship Integration				
Product Development (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Ship Design	WR	NSWC:Various	93.309	4.616	Feb 2012	-		-		-	0.000	97.925		
Ship Design	C/CPFF	HII:Pascagoula, MS	4.819	0.200	Feb 2012	-		-		-	0.000	5.019		
Ship Design	TBD	TBD:Various	-	12.002	Dec 2011	21.061	Dec 2012	-		21.061	0.000	33.063		
Special Studies	WR	NSWC:Panama City, FL	2.700	-		2.500	Dec 2012	-		2.500	11.100	16.300		
Subtotal			100.828	16.818		23.561		-		23.561	11.100	152.307		
Test and Evaluation (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation	WR	JITC:Fort Huachuca, AZ	3.303	0.290	Feb 2012	0.331	Dec 2012	-		0.331	0.607	4.531		
Operational Test & Evaluation	WR	OPTEVFOR/MCOTEA:Norfolk, VA/ Quantico, VA	6.955	1.890	Dec 2011	1.193	Dec 2012	-		1.193	11.474	21.512		
Live Fire Test & Evaluation	WR	NSWC:Carderock, MD	43.863	4.650	Dec 2011	6.295	Dec 2012	-		6.295	8.291	63.099		
Subtotal			54.121	6.830		7.819		-		7.819	20.372	89.142		
Management Services (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Program Management	C/CPFF	Alion:Washington, DC	7.830	2.954	Jun 2012	2.249	Dec 2012	-		2.249	14.556	27.589		
Travel	Various	Navsea Travel:Washington, DC	0.332	0.100	Feb 2012	0.100	Dec 2012	-		0.100	0.300	0.832		
Defense Acquisition Workforce	Various	Various:Various	0.011	-		-		-		-	0.000	0.011		
Subtotal			8.173	3.054		2.349		-		2.349	14.856	28.432		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 2465: LHA(R) FLT Design and Total Ship Integration			
	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	163.122	26.702		33.729		-		33.729	46.328	269.881	

Remarks

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Navy			<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>		<b>PROJECT</b> 2465: <i>LHA(R) FLT Design and Total Ship Integration</i>	

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	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
<b>Proj 2465</b>																												
LHA 6 Developmental Testing																												
LHA 6 Operational Testing																												
LHA 6 Vulnerability Assessment Report (VAR)																												
LHA 8 Requirements Trade Studies																												
LHA 8 Capability Development Document (CDD) Update																												
LHA 8 Preliminary Design/Contract Design																												
LHA 8 Modeling and Simulation Study																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>	<b>PROJECT</b> 2465: <i>LHA(R) FLT Design and Total Ship Integration</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2465</b>				
LHA 6 Developmental Testing	1	2011	1	2015
LHA 6 Operational Testing	1	2011	2	2016
LHA 6 Vulnerabilty Assessment Report (VAR)	1	2011	4	2015
LHA 8 Requirements Trade Studies	1	2011	4	2012
LHA 8 Capability Development Document (CDD) Update	1	2011	4	2012
LHA 8 Preliminary Design/Contract Design	1	2012	4	2014
LHA 8 Modeling and Simulation Study	1	2013	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 3133: Ship to Shore Connectors Contract Design			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
3133: Ship to Shore Connectors Contract Design	19.896	2.468	0.876	-	0.876	0.070	3.793	3.600	3.664	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**A. Mission Description and Budget Item Justification**

Ship to Shore Connector (SSC) - This project provides the Preliminary and Contract design and Class test efforts for the SSC Program. The SSC program provides the capability to rapidly move assault forces within the littoral operational environment to accomplish Unified Command Plan (UCP) missions and ensures the Joint Force Commander's (JFCDR's) ability to conduct amphibious operations and operate over the high water mark, including movement over ice, mud, rivers, swamps, and marshes. This project provides for the Systems Development and Demonstration package required for the solicitation for Detail Design and Construction and test of the initial article. Class Test and evaluation of components and systems will also be completed under this project. SSC provides the functional replacement for the LCAC Class of ships, which begin reaching extended service life in 2015. This project also encompasses those tasks required to develop the contract and technical data package necessary to support the procurement of the SSC Test and Training craft, including, but not limited to engineering support, programmatic and program support, logistics support, manpower and program related studies. The Test and Training craft and first production craft, which will be operationally fielded, are funded in RDT&E under this PE, Project 3137.

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

	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> Sea Base to Shore Connectors (Contract Des)	19.896	2.468	0.876
<b>Articles:</b>	0	0	0
<b>FY 2011 Accomplishments:</b> Continued Acquisition and Milestone B Planning. Continued Class Test and Evaluation program.			
<b>FY 2012 Plans:</b> Continue Class Test and Evaluation program including Test Planning and Coordination, Interoperability Testing, Vulnerability Assessment Report (VAR), Live Fire Test and Evaluation (LFT&E) Paper Studies, Surrogate tests, and LFT&E Document Coordination.			
<b>FY 2013 Plans:</b> Continue Class Test and Evaluation program including Test Planning and Coordination, Interoperability Testing, Vulnerability Assessment Report (VAR), Live Fire Test and Evaluation (LFT&E) Paper Studies, Surrogate tests, conduct Technical Readiness Review (TRR) and Operational Assessment (OA), TEMP and LFT&E Management plan updates and LFT&E Document Coordination.			
<b>Accomplishments/Planned Programs Subtotals</b>	19.896	2.468	0.876

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 3133: Ship to Shore Connectors Contract Design			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• SCN 5112: SSC Construction	0.000	0.000	0.000	0.000	0.000	0.000	128.988	267.079	287.446	Continuing	Continuing
D. Acquisition Strategy											
The Test and Training craft and first production craft will be procured and constructed with RDT&E funds. The Test and Training craft Detail Design contract will include options for construction of the T&T craft and additional production craft.											
E. Performance Metrics											
Begin Test and Evaluation Master Plan (TEMP) updates. Begin Developmental Testing Phase B and Operational Testing Phase B.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				PE 0604567N: Ship Contract Design/ Live Fire T&E				3133: Ship to Shore Connectors Contract Design					
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Ship Design	C/CPFF	CSC:Washington, DC	14.330	-		-		-		-	0.000	14.330	
Preliminary/Contract Design	Various	Various:Various	31.140	-		-		-		-	0.000	31.140	
System Engineering	Various	Various:Various	6.241	-		-		-		-	0.000	6.241	
Subtotal			51.711	-		-		-		-	0.000	51.711	
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Support	WR	NSWC PCD:Panama City, FL	4.636	-		-		-		-	0.000	4.636	
Software Development	Various	Various:Various	2.219	-		-		-		-	0.000	2.219	
Integrated Logistics Support	WR	NSWC:Various	3.365	-		-		-		-	0.000	3.365	
Studies & Analyses	TBD	Various:Various	5.775	0.154	Dec 2011	0.055	Oct 2012	-		0.055	Continuing	Continuing	Continuing
Subtotal			15.995	0.154		0.055		-		0.055			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various:Various	0.033	-		-		-		-	0.000	0.033	
Operational Test & Evaluation	Various	Various:Various	1.601	0.333	Dec 2011	0.505	Nov 2012	-		0.505	Continuing	Continuing	Continuing
Live Fire Test & Evaluation	Various	Various:Various	3.834	1.377	Dec 2011	0.316	Nov 2012	-		0.316	Continuing	Continuing	Continuing
Subtotal			5.468	1.710		0.821		-		0.821			

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2013 Navy											<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>				<b>PROJECT</b> 3133: <i>Ship to Shore Connectors Contract Design</i>					
<b>Management Services (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Contractor Engineering Support	C/CPFF	CSC/Alion:Washington, DC	9.323	0.454	Jul 2012	-		-		-	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC:Various	3.689	-		-		-		-	0.000	3.689	
Program Management Support	Various	Various:Various	6.480	-		-		-		-	0.000	6.480	
Travel	Various	NAVSEA Travel:Washington, DC	0.150	0.150	Mar 2012	-		-		-	0.000	0.300	
Defense Acquisition Workforce	Various	Various:Various	0.126	-		-		-		-	0.000	0.126	
<b>Subtotal</b>			19.768	0.604		-		-		-			
			<b>Total Prior Years Cost</b>	<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			92.942	2.468		0.876		-		0.876			
<b>Remarks</b>													

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E	PROJECT 3133: Ship to Shore Connectors Contract Design

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>	<b>PROJECT</b> 3133: <i>Ship to Shore Connectors Contract Design</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3133</b>				
Early Operational Assessment (EOA)	1	2011	1	2011
Defense Acquisition Board (DAB) Review (FY12)	2	2012	2	2012
Detail Design & Construction (DD&C) Award	2	2012	2	2012
Acquisition Milestone B	2	2012	2	2012
Development Test/Operational Test B (DT/OT-B)	2	2012	1	2015
Critical Design Review (CDR)	4	2013	4	2013
Operational Assessment (OA)	4	2013	4	2013
Capabilities Production Document (CPD)	4	2013	4	2014
Defense Acquisition Board (DAB) Review (FY14)	2	2014	2	2014
Low Rate Initial Production (LRIP) Approval	1	2015	1	2015
Acquisition Milestone C	1	2015	1	2015
Development Test/Operational Test C (DT/OT-C)	2	2015	4	2017
Defense Acquisition Board (DAB) Review (FY16)	1	2016	1	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 3137: SSC Construction			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
3137: SSC Construction	77.889	52.466	130.394	-	130.394	111.076	34.134	4.373	2.810	Continuing	Continuing
Quantity of RDT&E Articles	1	0	1	0	1	0	0	0	0		

**A. Mission Description and Budget Item Justification**

This project funds the Ship to Shore Connector (SSC) Engineering & Manufacturing Development phase which includes Detail Design and Construction, Integrated Logistics Support (ILS), Government Furnished Equipment (GFE), Program support, and Outfitting and Post Delivery for the first two crafts. The lead craft will be maintained as a test and training platform throughout its life cycle. The second craft (Craft 101) will be available to support IOT&E as needed, but will be a fleet asset after delivery. The SSC program provides the capability to rapidly move assault forces within the littoral operational environment to accomplish Unified Command Plan (UCP) missions, and ensures the Joint Force Commander's (JFCDR's) ability to conduct amphibious operations and operate over the high water mark, including movement over ice, mud, rivers, swamps and marshes. The SSC program provides the functional replacement for the LCAC Class of ships, which begin reaching extended service life in 2015.

**TEST AND TRAINING CRAFT:**

Plans:

TOTAL 39.1 (FY13 0.0)

Basic Construction:

TOTAL 187.5 (FY13 62.5)

Change Orders:

TOTAL 18.7 (FY13 5.3)

Electronics

TOTAL 8.3 (FY13 1.3)

HM&E:

TOTAL 31.0 (FY13 15.2)

Other Support:

TOTAL 46.6 (FY13 16.1)

Ordnance

Total 0.0 (FY13 0.0)

Post Delivery/Outfitting:

TOTAL 4.5 (FY13 0.0)

Ship Total:

TOTAL 335.7 (FY13 100.4)

CRAFT 101:

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E		PROJECT 3137: SSC Construction		
Basic Construction TOTAL 47.5 (FY13 26.0) Change Orders: TOTAL 2.3 (FY13 0.9) Electronics: TOTAL: 2.2 (FY13 2.2) HM&E TOTAL: 4.9 (FY13 0.9) Other Support TOTAL: 18.6 (FY13 0.0) Ordnance TOTAL 0.0 (FY13 0.0) Post Delivery/Outfitting TOTAL 2.1 (FY13 0.0) Ship Total: TOTAL 77.6 (FY13 30.0)						
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2011	FY 2012	FY 2013
Title: SSC Construction				77.889	52.466	130.394
Articles:				1	0	1
FY 2011 Accomplishments: Initiated critical Government Furnished Information (GFI) development. Continued Acquisition and Milestone B planning.						
FY 2012 Plans: Milestone B approval; Award Detail Design and Construction Contract; Begin Detail Design and Construction planning efforts including software development and procurement of Contractor Furnished Equipment (CFE) Long Lead Time Material (LLTM) for the test and training craft.						
FY 2013 Plans: Continue Detail Design and Construction planning efforts; award contract option for Craft 101 and begin LLTM procurement and production planning.						
Accomplishments/Planned Programs Subtotals				77.889	52.466	130.394

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Navy										<b>DATE:</b> February 2012	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>				<b>PROJECT</b> 3137: <i>SSC Construction</i>			
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
			<u>FY 2013</u>	<u>FY 2013</u>	<u>FY 2013</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Complete</u>	<u>Total Cost</u>
• SCN 5112: <i>SSC Construction</i>	0.000	0.000	0.000	0.000	0.000	0.000	128.988	267.079	287.446	Continuing	Continuing
<b>D. Acquisition Strategy</b>											
The first two SSCs will be designed and constructed with RDT&E funds. The Test and Training craft Detail Design and Construction contract will include options for follow craft to be procured with SCN funds.											
<b>E. Performance Metrics</b>											
Award Detail Design and Construction contract for Test and Training craft with options for follow on test and training craft and follow on SCN funded craft.											
Deliver test and training craft											
Deliver Craft 101											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy										DATE: February 2012				
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 3137: SSC Construction					
Product Development (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Test & Trng Craft Ship Design	C/CPFF	Alion:Washington, DC	0.683	7.070	Dec 2011	7.000	Oct 2012	-		7.000	0.000	14.753		
Test & Trng Craft Detail Design	C/FPIF	TBD:TBD	24.600	12.180	Mar 2012	-		-		-	0.000	36.780		
Test & Trng Craft Construction	C/FPIF	TBD:TBD	45.145	8.566	Mar 2012	62.471	Oct 2012	-		62.471	0.000	116.182		
Test & Trng Craft Government Furnished Equipment (GFE)	Various	TBD:TBD	0.100	5.520	Mar 2012	1.400	Oct 2012	-		1.400	0.000	7.020		
Test & Trng Craft Change Orders	C/FPIF	TBD:TBD	-	0.600	Mar 2012	5.300	Oct 2012	-		5.300	0.000	5.900		
Craft 101 LLTM & Construction Planning	C/FPIF	TBD:TBD	-	-		25.990	Mar 2013	-		25.990	0.000	25.990		
Craft 101 Government Furnished Equipment	Various	TBD:TBD	-	-		3.110	Mar 2013	-		3.110	0.000	3.110		
Craft 101Change Orders	C/FPIF	TBD:TBD	-	-		0.900	Mar 2013	-		0.900	0.000	0.900		
Subtotal			70.528	33.936		106.171		-		106.171	0.000	210.635		
Support (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Test & Trng Craft Integrated Logistics Support	WR	NSWC:Various	0.263	4.660	Dec 2011	5.410	Oct 2012	-		5.410	0.000	10.333		
Studies and Analysis	Various	Various:Various	4.868	3.280	Dec 2011	6.275	Oct 2012	-		6.275	0.000	14.423		
Subtotal			5.131	7.940		11.685		-		11.685	0.000	24.756		
Test and Evaluation (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Test & Trng Craft Construction Test Program	Various	Various:Various	-	1.190	Dec 2011	1.850	Oct 2012	-		1.850	0.000	3.040		

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PE 0604567N: *Ship Contract Design/ Live Fire T&E*  
Navy

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E	PROJECT 3137: SSC Construction

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>	<b>PROJECT</b> 3137: <i>SSC Construction</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3137</b>				
Defense Acquisition Board (DAB) Review/Acquisition Milestone B	2	2012	2	2012
Test and Training Craft DD&C Contract Award	2	2012	2	2012
Test and Training Craft Detail Design	2	2012	2	2014
Craft 101 Option Award	2	2013	2	2013
Craft 101 LLTM & Plng	2	2013	3	2014
Critical Design Review (CDR)	4	2013	4	2013
Capabilities Production Document (CPD)	4	2013	4	2014
Production Readiness Review (PRR)	2	2014	2	2014
Defense Acquisition Board (DAB) Review (FY14)	2	2014	2	2014
Test and Training Craft Construction	2	2014	4	2016
Craft 101 Construction	3	2014	2	2017
Low Rate Initial Production (LRIP) Approval	1	2015	1	2015
Acquisition Milestone C	1	2015	1	2015
Defense Acquisition Board (DAB) Review (FY16)	1	2016	1	2016
Test and Training Craft Delivery	4	2016	4	2016
Test and Training Craft Post Delivery Test and Trials (PDT&T)	4	2016	4	2017
Craft 101 Delivery	2	2017	2	2017
Craft 101 Post Delivery Test and Trials (PDT&T)	2	2017	4	2017

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				PE 0604567N: Ship Contract Design/ Live Fire T&E				3179: CVN-79 Total Ship Integration			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
3179: CVN-79 Total Ship Integration	20.538	19.166	11.187	-	11.187	15.978	16.567	15.224	15.489	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**A. Mission Description and Budget Item Justification**

Development and related testing of CVN 78 Class aircraft carrier specific technologies, the infusion of the ship technology base into existing and future aircraft carriers, and the potential realization of subsystem design capabilities not currently feasible. This project also funds the Contract Design efforts for the CVN 79. This project transitions the minimum sustaining technologies required to address obsolescence, critical survivability shortfalls as identified in CVN 78 Class testing, future requirements, and technologies which did not mature in time to support the CVN 78. All systems developed in this project have the potential to support emerging requirements and other promising systems technologies for insertion into new aircraft carrier designs. The emphasis is directed toward developing ship hull, mechanical, propulsion, electrical, aviation, warfare systems, and combat support systems, sub-systems and components to maintain aircraft carrier affordability, manpower requirements, survivability, and operational capabilities and to meet the requirements of existing and pending regulations and statutes critical to the operation of future aircraft carriers. This project also encompasses those tasks required to develop the contract data package necessary to support CVN 79 procurement, including, but not limited to engineering support, programmatic and program support, logistics support, modeling and simulation, manpower and program related studies, and design support systems, such as the Integrated Digital Environment.

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

		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> CVN-79 Total Ship Integration		20.538	19.166	11.187
<b>Articles:</b>		0	0	0
<p><b>FY 2011 Accomplishments:</b> Plans include further HII development and submission of BCA items to reduce CVN 79 acquisition cost. Further development and implementation of previous and new items yet to be determined will occur during the fiscal year. Some of the efforts that are being considered include, but are not limited to, Tandem Arc Welding, Machinery Control &amp; Monitoring System reduction, Final Assembly Platen rolling roof covers, Steel Fabrication nesting improvements, Cable Pulling process enhancements, Pipe Shop consolidation, Sea Chest produce ability, other spare circuit breaker reductions, and Weapons Elevator door redesign. Additionally, ongoing efforts will be continued, including CVN 78 Class shock, vibration and EMI analysis, obsolescence analysis, and HSI.</p> <p><b>FY 2012 Plans:</b></p>				

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 3179: CVN-79 Total Ship Integration			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2011	FY 2012	FY 2013
Plans include further HII development and submission of BCA items to reduce CVN 79 acquisition cost. Further development and implementation of previous and new items yet to be determined will occur during the fiscal year. Additionally, the continuation of on-going efforts, including CVN 78 Class shock, vibration and EMI analysis, obsolescence analysis, and HSI are planned.											
FY 2013 Plans: Plans include further HII development and submission of BCA items to reduce CVN 79 acquisition and total ownership cost. Due to design maturity, a gradual shift from development towards implementation is expected as BCAs mature. Additionally, the continuation of ongoing efforts, including CVN 78 Class shock, vibration and EMI analysis, obsolescence analysis, and HSI are planned.											
Accomplishments/Planned Programs Subtotals									20.538	19.166	11.187
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• 0605312N: 2208, 4004	89.579	50.235	97.534	0.000	97.534	60.780	40.125	40.790	41.515	0.000	1,828.476
• 0603570N: CVN 21 (PU 2692)	66.304	65.808	62.020	0.000	62.020	57.493	56.469	0.000	0.000	0.000	1,526.644
• BLI 200100: Carrier Replacement Program	2,615.756	554.798	608.195	0.000	608.195	666.129	2,999.085	1,662.208	2,867.641	13,154.068	36,797.394
• BLI 530000: Completion of Prior Year Shipbuilding Programs	0.000	0.000	0.000	0.000	0.000	449.000	362.000	0.000	0.000	0.000	811.000
D. Acquisition Strategy											
The CVN 80 is the third ship of the CVN 78 Class of aircraft carriers designed to replace USS ENTERPRISE and the ships of the NIMITZ Class Carriers. CVN 79 is a modified repeat of the CVN 78, which features the new nuclear propulsion and electrical generation / distribution system, electromagnetic aircraft launch system (EMALS), advanced arresting gear (AAG) system, 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 war fighting 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. CVN 79 will use late integration of Government-Furnished Equipment to provide the latest combat system and C4I suite applications within the planned system baseline. CVN 79 will improve upon processes used on CVN 78 to gain efficiencies during the CVN 79 Construction Preparation and Construction periods.											
E. Performance Metrics											
Successfully complete system development efforts for designated new and modified shipboard system, including developmental test and evaluation documents.											
Successfully complete design related activities associated with integration of new and modified shipboard systems into the ship, including developmental test and											

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Navy		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>	<b>PROJECT</b> 3179: <i>CVN-79 Total Ship Integration</i>
<p>evaluation documentation. Successfully perform system design and analysis studies. Successfully support design integration and analysis. Successfully complete or support feasibility and tradeoff studies on new and modified shipboard systems, technologies, and proposed modifications. Studies shall include requirements and engineering analysis; identification of subsystem, integration, and logistics impacts; cost estimates; analysis of construction schedule impacts; and conduct/ support of shipchecks. Successfully provide Manpower Workload Analysis associated with design and policy activities, and with integration of new and modified system/equipment. Successfully complete the development of multiple Business Case Analyses (BCAs) that demonstrate technology, process, requirements and/or infrastructure improvements that will reduce the man hours (or equivalent material costs) for CVN 79 Construction.</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy** **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: Ship Contract Design/ Live Fire T&E				<b>PROJECT</b> 3179: CVN-79 Total Ship Integration			
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Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Total Ship Integration	C/CPAF	HII:VA	70.123	12.337	Dec 2011	5.230	Dec 2012	-		5.230	Continuing	Continuing	Continuing
Total Ship Integration	WR	NSWC Carderock:MD	10.290	1.091	Nov 2011	1.356	Oct 2012	-		1.356	Continuing	Continuing	Continuing
Total Ship Integration	WR	NSWC Dahlgren:VA	7.646	1.052	Nov 2011	1.052	Oct 2012	-		1.052	Continuing	Continuing	Continuing
Total Ship Integration	WR	NAWCAD Pax River:MD	2.954	0.892	Nov 2011	0.793	Oct 2012	-		0.793	Continuing	Continuing	Continuing
Total Ship Integration	WR	SPAWAR:SD	2.435	0.496	Nov 2011	0.494	Oct 2012	-		0.494	Continuing	Continuing	Continuing
Total Ship Integration	C/CPFF	NAVSEA SEAPORT:DC	11.567	1.323	Nov 2011	0.517	Nov 2012	-		0.517	Continuing	Continuing	Continuing
Total Ship Integration	C/CPAF	Raytheon:MA	4.325	1.558	Dec 2011	1.548	Dec 2012	-		1.548	Continuing	Continuing	Continuing
Total Ship Integration	WR	SSC Charleston:SC	0.233	-		-		-		-	Continuing	Continuing	Continuing
Total Ship Integration	C/CPFF	SAIC:VA	0.551	-		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			110.124	18.749		10.990		-		10.990			

**Remarks**

Northrop Grumman spun off its shipbuilding sector and effective 14 April 2001 officially became Huntington Ingalls Industries (HII).

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation	WR	COMOPTEVFOR:VA	-	0.181	Oct 2011	0.186	Oct 2012	-		0.186	0.000	0.367	
Developmental Test & Evaluation	WR	CARDEROCK:MD	4.491	0.236	Oct 2011	0.011	Oct 2012	-		0.011	0.000	4.738	
Developmental Test & Evaluation	WR	NUWC NEWPORT:RI	0.123	-		-		-		-	0.000	0.123	
<b>Subtotal</b>			4.614	0.417		0.197		-		0.197	0.000	5.228	

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2013 Navy											<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>				<b>PROJECT</b> 3179: <i>CVN-79 Total Ship Integration</i>					

  

<b>Management Services (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Defense Acquisition Workforce	Various	Various:Mis	0.181	-		-		-		-	0.000	0.181	
<b>Subtotal</b>			0.181	-		-		-		-	0.000	0.181	

  

	<b>Total Prior Years Cost</b>	<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	114.919	19.166		11.187		-		11.187			

  

**Remarks**

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	PE 0604567N: Ship Contract Design/ Live Fire T&E	3179: CVN-79 Total Ship Integration

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>	<b>PROJECT</b> 3179: <i>CVN-79 Total Ship Integration</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3179</b>				
CVN 79 DAB PR	3	2013	3	2013
Propulsion Plant	1	2011	4	2017
EMALS SDD Complete	2	2015	2	2015
AAG Config Review	1	2011	1	2011
AAG TRR 2 (IT)	2	2012	2	2012
Integrated Test 1 (IT-1)	1	2011	2	2013
Integrated Test 2 (IT-2)	2	2013	3	2016
Integrated Test 3 (IT-3)	3	2016	1	2017
Integrated Test 3 (IT-4)	1	2017	4	2017
Operational Assessment Report 1 (OAR1 IT-1)	3	2012	3	2012
Operational Assessment Report 2 (OAR2 IT-1)	3	2013	3	2013
Developmental Test Report (DT RPT IT-1)	3	2013	3	2013
Operational Assessment Report 3 (OAR3 IT-1)	4	2014	4	2014
Developmental Test Report (DT RPT IT-2)	4	2016	4	2016
Operational Assessment Report (OAR IT-2)	4	2016	4	2016
Assessment of Operational Test Readiness - Phase C1 (AOTR-C1)	4	2016	4	2016
Operational Test Readiness Review - Phase C1 (OTRR-C1)	4	2016	4	2016
Developmental Test Report (DT RPT IT-3)	2	2017	2	2017
Assessment of Operational Test Readiness - Phase C1 (AOTR-C2)	3	2017	3	2017
Operational Test Readiness Review - Phase C1 (OTRR-C2)	3	2017	3	2017
Operational Test Phase 1 (OT-C1)	1	2017	4	2017

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E		PROJECT 3179: CVN-79 Total Ship Integration	
	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Operational Test Phase 2 (OT-C2)	3	2017	4	2017
CVN 79 Construction Contract Award	4	2013	4	2013
CVN 79 SCN Full Funding	1	2013	4	2017
CVN 78 Ship Delivery	4	2015	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 4007: CVN 21 LFT&E			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
4007: CVN 21 LFT&E	2.658	1.645	2.675	-	2.675	3.668	3.784	5.083	4.310	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
This project encompasses Live Fire Test and Evaluation (LFT&E) efforts for the CVN 78 Class. Title 10, US Code, Section 2366, CVN 21 Operational Requirements Document (ORD) and the CVN 78 Class Test and Evaluation Master Plan (TEMP) 1610, prescribe requirements for LFT&E. The purpose of LFT&E is to evaluate covered systems in a realistic combat environment before proceeding beyond low-rate initial production. Since the application of the survivability testing required by 10USC2366 to a CVN 78 Class ship would be unreasonably expensive and impractical, the Secretary of Defense waived the live-fire testing requirement in 2004 and submitted a certification of that determination to Congress. The CVN 21 LFT&E Management Plan details testing, modeling and simulation, and engineering analyses that are being used to determine whether the CVN 78 Class ships will be able to survive and carry out their missions against the threat weapons identified in the Capstone Ship Threat Assessment (CSTA) that are likely to be encountered in combat. The results of these tests and analyses are documented in periodic Vulnerability Assessment Reports (VARs).											
VAR 3 was completed in the summer of 2007 and VAR 4 is scheduled to be completed in FY 14.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: CVN 21 LFT&E								2.658	1.645	2.675	
								0	0	0	
FY 2011 Accomplishments: Updated CVN 78 Class Management Plan Revision B to account for emergent changes in the CVN 78 Class LFT&E program. Continued CVN 78 VAR 4 efforts by: finalizing the survivability models; completing the susceptibility model analyses for hit point selection; beginning the first Damage Based Engineering Analyses (DSBEA), performing the Fire and Smoke Simulator (FSSIM) analyses for the first DSBEA, beginning the Ship Vulnerability Model (SVM) analyses, completing verification and validation (V&V) analyses and documentation of DYSMAS to support VAR 4. Completed the CVN 78 surrogate magazine fire suppression system and conducted a proof test of the combined detection/suppression system on ex-USS Shadwell.								Articles:			
FY 2012 Plans: Continue the SVM analyses and DSBEAs for VAR 4. Begin documentation of the analyses for VAR 4.											
FY 2013 Plans:											

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy										DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 4007: CVN 21 LFT&E				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2011	FY 2012	FY 2013
Complete the DSBEAs and continue the SVM analyses and documentation for CVN 78 VAR 4. Work with Huntington Ingalls Industries to refine the developed Finite Element Model (FEM) of the as-built CVN 78 structure to include vital systems and selected equipment.												
Accomplishments/Planned Programs Subtotals										2.658	1.645	2.675
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
• BLI 200100: Carrier Replacement Program	2,615.756	554.798	608.195	0.000	608.195	666.129	2,999.085	1,662.208	2,867.641	13,154.058	36,797.384	
• 0603570N: CVN 21 (PU 2692)	66.304	65.808	62.020	0.000	62.020	57.493	56.469	0.000	0.000	0.000	1,526.644	
• 0603512N: 2208, 4004	89.579	50.235	97.534	0.000	97.534	60.780	40.125	40.790	41.515	0.000	1,828.476	
• BLI 530000: Completion of Prior Year Shipbuilding	0.000	0.000	0.000	0.000	0.000	449.000	362.000	0.000	0.000	0.000	811.000	
D. Acquisition Strategy												
The CVN 78 is the first ship of the CVN 78 Class of aircraft carriers designed to replace USS ENTERPRISE and the ships of the NIMITZ Class. The CVN 78 will feature a new nuclear propulsion and electrical generation/distribution system, new electromagnetic aircraft launching system (EMALS), advanced arresting gear (AAG) 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.												
E. Performance Metrics												
Successfully complete CVN 78 fire test effort in support of magazine fire protection system. Complete update of the LFT&E Management Plan Revision B to account for emergent changes in the CVN 78 Class LFT&E program. Successfully complete Vulnerability Assessment Report (VAR) 4.												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E				PROJECT 4007: CVN 21 LFT&E					
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Live Fire Test & Evaluation	WR	NSWC Carderock:MD	42.849	1.101	Oct 2011	2.222	Oct 2012	-		2.222	Continuing	Continuing	Continuing
Live Fire Test & Evaluation	C/CPAF	HII:VA	7.961	0.544	Nov 2011	0.453	Nov 2012	-		0.453	Continuing	Continuing	Continuing
Subtotal			50.810	1.645		2.675		-		2.675			
Remarks Northrop Grumman spun off its shipbuilding sector and effective 14 April 2001 officially became Huntington Ingalls Industries (HII).													
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Defense Acquisition Workforce	TBD	Various:Various	0.010	-		-		-		-	0.000	0.010	
Subtotal			0.010	-		-		-		-	0.000	0.010	
			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			50.820	1.645		2.675		-		2.675			
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>	PROJECT 4007: <i>CVN 21 LFT&amp;E</i>

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>	<b>PROJECT</b> 4007: <i>CVN 21 LFT&amp;E</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 4007</b>				
CVN 79 DAB PR	3	2013	3	2013
Propulsion Plant	1	2011	4	2017
EMALS SDD Complete	2	2015	2	2015
AAG Config Review	1	2011	1	2011
AAG TRR 2 (IT)	2	2012	2	2012
Integrated Test 1 (IT-1)	1	2011	2	2013
Integrated Test 2 (IT-2)	2	2013	3	2016
Integrated Test 3 (IT-3)	3	2016	1	2017
Integrated Test 3 (IT-4)	1	2017	4	2017
Operational Assessment Report 1 (OAR1 IT-1)	3	2012	3	2012
Operational Assessment Report 2 (OAR2 IT-1)	3	2013	3	2013
Developmental Test Report (DT RPT IT-1)	3	2013	3	2013
Operational Assessment Report 3 (OAR3 IT-1)	4	2014	4	2014
Developmental Test Report (DT RPT IT-2)	4	2016	4	2016
Operational Assessment Report (OAR IT-2)	4	2016	4	2016
Assessment of Operational Test Readiness - Phase C1 (AOTR-C1)	4	2016	4	2016
Operational Test Readiness Review - Phase C1 (OTRR-C1)	4	2016	4	2016
Developmental Test Report (DT RPT IT-3)	2	2017	2	2017
Assessment of Operational Test Readiness - Phase C1 (AOTR-C2)	3	2017	3	2017
Operational Test Readiness Review - Phase C1 (OTRR-C2)	3	2017	3	2017
Operational Test Phase 1 (OT-C1)	1	2017	4	2017

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy				DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604567N: Ship Contract Design/ Live Fire T&E		PROJECT 4007: CVN 21 LFT&E	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Operational Test Phase 2 (OT-C2)		3	2017	4	2017
CVN 79 Construction Contract Award		4	2013	4	2013
CVN 79 SCN Full Funding		1	2013	4	2017
CVN 78 Ship Delivery		4	2015	4	2015

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Navy									<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604567N: <i>Ship Contract Design/ Live Fire T&amp;E</i>				<b>PROJECT</b> 9999: <i>Congressional Adds</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
9999: <i>Congressional Adds</i>	12.934	-	-	-	-	-	-	-	-	0.000	12.934
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**A. Mission Description and Budget Item Justification**  
Congressional Add

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>Congressional Add:</b> DD(X) FSST	12.934	-
<b>FY 2011 Accomplishments:</b> Provides funding to develop a common, affordable technically acceptable Navy-wide alternative to replace Full Ship Shock Trials (FSST) for surface ships. FSSTs are required for all new ship classes and flights to confirm design and construction shock hardness requirements.		
<b>Congressional Adds Subtotals</b>	12.934	-

**C. Other Program Funding Summary (\$ in Millions)**  
N/A

**D. Acquisition Strategy**  
Congressional Add

**E. Performance Metrics**  
Congressional Add