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EXHIBIT R-2, RDT&E Budget Item Justification						DATE: <div>June 2001</div>				
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/4					R-1 ITEM NOMENCLATURE 0603564N/Ship Preliminary Design and Feasibility Studies					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Total PE Cost	9.969	56.374	14.922						Continuing	Continuing
Ship Feasibility Studies/S0408	9.969	36.558	14.922						Continuing	Continuing
Shipboard Simulation for USMC/22863	0.000	19.816	0.000						0.000	19.816
Quantity of RDT&E Articles	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
A. (U) Mission Description and Budget Item Justification. Ship concepts, identified in PE 0603563N (Ship Concept Advanced Design) are transitioned to and further developed by this project after an approved Milestone A (MS A) decision. This project performs the Ship Feasibility Studies required to address a specific Mission Needs Statement (MNS) and supports the Analysis of Alternatives(AOA) for new surface ships in the Navy Shipbuilding Plan; performs impact studies of warfare, hull, mechanical and electrical subsystems on advanced ship designs; enhances ship/ship system design methodologies that support phase 0; develops and upgrades the engineering tools, especially ship synthesis models, used to support AOA studies and other engineering efforts accomplished during phase 0; evaluates advanced and alternative technologies and develops total ship concepts with these technologies to assess their suitability; develops the initial documentation and design methodology required by the government for the design of surface ships in the Shipbuilding Program in accordance with the requirements of the DoD 5000 directives/instructions; supports the development of the Operational Requirements Document (ORD) and other documentation required at Program Initiation and accomplishes other efforts for future ship acquisitions in support of a Program Initiation decision. Completion of this phase allows review and approval, at Program Initiation, to transfer a ship program to the Contract Design Program Element 0604567N. Ship Feasibility Study products include a description of the alternative ships' principal characteristics and mission critical subsystems, weight estimates, general arrangement sketches, technical risk assessments, and Class F cost estimates. The objective is to provide the decision makers with feasible, affordable alternatives.										
B. (U) Description of Shipboard Simulation for Marine Corps Operations. Models and simulations of USMC operations and support are to be demonstrated and further developed as required by this project. This project will ensure interoperability between select amphibious ships and the embarked USMC forces in support of expeditionary warfare operations. Interoperability will be demonstrated through the use of modeling and simulation technology for pre-assault mission planning and rehearsals, just-in-time, embedded technical and tactical training of USMC forces afloat, cargo and munitions load out planning, cross-ARG, real time cargo visibility, survivability analysis and maritime logistics planning in support of Operational Maneuver From The Sea. Models will also enable operational planning for special operations such as humanitarian assistance and NEO missions. The use of modelling and simulation technology enables the avoidance of more costly and time consuming operational testing and evaluation. The objective is to maximize compatability and interoperability between amphibious ships and USMC forces, and to maximize mission flexibility across various warfare areas.										

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EXHIBIT R-2, RDT&E Budget Item Justification		DATE: June 2001	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/4		R-1 ITEM NOMENCLATURE 0603564N/Ship Preliminary Design and Feasibility Studies/S0408	
 B. Program Change Summary			
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>
(U) FY 2001 President's Budget:	12.012	46.896	4.944
(U) Appropriated Value:	12.012	56.896	
(U) Adjustment to FY 2000/2001 Appropriated Value/ FY 2001 Presidents Budget:	-2.043	9.478	9.978
(U) FY 2002 PRES Budget Submit	9.969	56.374	14.922
 FY 2000 Changes consist of: -\$1.175M Below Threshold Reprogramming update (May-00), -\$0.125M SBIR assessment, -\$0.576M Midyear adjustments and -\$0.167M minor adjustments. FY 2001 Changes consist of: +\$20.000M for Shipboard Simulation of USMC Operations, -\$10.000M JCC(X) Analysis of Alternatives and -\$0.398M .7% Pro-Rata Reduction and -\$0.124M minor adjustments.. FY 2002 Changes consist of: +\$10.000M JCC(X) Feasibility Studies and -\$0.022minor adjustments.			
Schedule: Not applicable.			
Technical: Not applicable.			

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EXHIBIT R-2a, RDT&E Budget Item Justification							DATE:				
APPROPRIATION/BUDGET ACTIVITY RDT& E, NAVY/BA4		PROGRAM ELEMENT NAME AND NUMBER				R-1 ITEM NOMENCLATURE					
		SHIP PRELIMINARY DESIGN/FEASIBILITY STUDIES				Ship Development (Adv)/S0408					
COST (\$ in Millions)		FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost		9.969	36.558	14.922						Continuing	Continuing
Quantity of RDT&E Articles		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
A. (U) Mission Description and Budget Item Justification. Ship concepts, identified in PE 0603563N (Ship Concept Advanced Design) are transitioned to and further developed by this project after an approved Milestone A (MS A) decision. This project performs the Ship Feasibility Studies required to address a specific Mission Needs Statement (MNS) and supports the Analysis of Alternatives(AOA) for new surface ships in the Navy Shipbuilding Plan; performs impact studies of warfare, hull, mechanical and electrical subsystems on advanced ship designs; enhances ship/ship system design methodologies that support phase 0; develops and upgrades the engineering tools, especially ship synthesis models, used to support AOA studies and other engineering efforts accomplished during phase 0; evaluates advanced and alternative technologies and develops total ship concepts with these technologies to assess their suitability; develops the initial documentation and design methodology required by the government for the design of surface ships in the Shipbuilding Program in accordance with the requirements of the DoD 5000 directives/instructions; supports the development of the Operational Requirements Document (ORD) and other documentation required at Program Initiation and accomplishes other efforts for future ship acquisitions in support of a Program Initiation decision. Completion of this phase allows review and approval, at Program Initiation , to transfer a ship program to the Contract Design Program Element 0604567N. Ship Feasibility Study products include a description of the alternative ships' principal characteristics and mission critical subsystems, weight estimates, general arrangement sketches, technical risk assessments, and Class F cost estimates. The objective is to provide the decision makers with feasible, affordable alternatives.											

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EXHIBIT R-2a, RDT&E Budget Item Justification		DATE: June 2001
APPROPRIATION/BUDGET ACTIVITY RDT& E, NAVY/BA4	PROGRAM ELEMENT NAME AND NUMBER SHIP PRELIMINARY DESIGN/FEASIBILITY STUDIES	R-1 ITEM NOMENCLATURE Ship Development (Adv)/S0408
<p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2000 ACCOMPLISHMENTS:</p> <p>(U) (\$9.969) Pre-Program initiation AOA, ORD developed and supported feasibility studies for a new Joint Command and Control (JCC(X)) ship.</p> <p>2. (U) FY 2001 PLAN:</p> <p>(U) (\$20.486) Continue JCC(X) Feasibility Studies, AOA, ORD development and mission package and host platform definition. JCC(X) requirements development process. Prepare documentation required for a Program Initiation decision. Develop and upgrade engineering tools, especially ship synthesis models, that support this AOA study and the other engineering efforts accomplished during Phase 0, between Milestones A and Program Initiation.</p> <p>(U) (\$15.534) Begin pre-Program Initiation AOA, feasibility studies, and ORD Development for LHA Replacement ships. Develop and upgrade engineering tools, especially ship synthesis models, that support this AOA study and the other engineering efforts accomplished during Phase 0, between Milestones A and program Initiation.</p> <p>(U) (\$ 0.538) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.</p> <p>3. (U) FY 2002 PLAN:</p> <p>(U) (\$10.000) Continue and complete JCC(X) Feasibility Studies, ORD development and mission package and host platform definition. Fund limited industry participation in JCC(X) requirements development process. Prepare documentation required for a Program Initiation decision. Develop and upgrade engineering tools, especially ship synthesis models, that support this Feasibility Study and the other engineering efforts accomplished during Phase 0, between Milestones A and Program Initiation.</p> <p>(U) (\$ 3.922) Continue and complete LHA Replacement Feasibility Studies. Prepare documentation required for a Program Initiation decision. Develop and upgrade engineering tools, especially ship synthesis models that support this AOA and other engineering efforts accomplished during Phase 0, between Milestone A and Program Initiation</p> <p>(U) (\$1.000) Initiate AOE-10 replenishment ship feasibility studies.</p>		

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EXHIBIT R-2, RDT&E Budget Item Justification		DATE: June 2001								
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/4	R-1 ITEM NOMENCLATURE 0603564N/Ship Preliminary Design and Feasibility Studies/S0408									
<p>C. (U) Other Program Funding Summary: Not applicable.</p> <p>(U) Related RDT&E: (U) PE 0603563N (Ship Concept Advanced Design) (U) PE 0604567N (Ship Contract Design/Live Fire T&E)</p> <p>D. (U) Acquisition Strategy: Not applicable. This is a non acquisition program that supports pre-Milestone I efforts for potential ship acquisition programs.</p> <p>E. (U) Schedule Profile:</p> <table><tr><td>Program Milestones</td><td>FY 2000</td><td>FY 2001</td><td>FY2002</td></tr><tr><td></td><td></td><td>3Q LHA Replacement MS A</td><td>4Q LHA Replacement Program Initiation 1Q JCC(X) Program Initiation</td></tr></table> <p>Engineering Milestones TBD - Milestone schedule is established at Program Initiation.</p> <p>T&E Milestones See individual ship acquisition program documentation.</p> <p>Contract Milestones See Individual ship acquisition program documentation.</p>			Program Milestones	FY 2000	FY 2001	FY2002			3Q LHA Replacement MS A	4Q LHA Replacement Program Initiation 1Q JCC(X) Program Initiation
Program Milestones	FY 2000	FY 2001	FY2002							
		3Q LHA Replacement MS A	4Q LHA Replacement Program Initiation 1Q JCC(X) Program Initiation							

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Exhibit R-2, RDT&E Project Justification
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Exhibit R-3 Cost Analysis (page 1)								DATE:				
APPROPRIATION/BUDGET ACTIVITY								June 2001				
PROGRAM ELEMENT			PROJECT NAME AND NUMBER									
RDT&E,N/4			Ship Prelim Design & Feasibility Studies/0603564N					Ship Development (ADV)/S0408				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Systems Engineering	WR	NSWC Dahlgren, VA	8.842	0.750	Various	2.420	Various	1.050	Various	Cont.	Cont.	N/A
	WR	NSWC Carderock, MD	0.000	1.480	Various	6.283	Various	1.095	Various	Cont.	Cont.	N/A
	WR	NSWC Panama City	0.000	0.000		1.300	Various			Cont.	Cont.	N/A
	PD	SPAWAR	0.000	3.030	Various	6.181	Various	2.008	Various	Cont.	Cont.	N/A
	PD	NAVAIR	0.000	0.000		0.800	Various	0.300	Various	Cont.	Cont.	N/A
	WR/Reqn	Other Government	10.558	0.000		1.614	Various			Cont.	Cont.	N/A
	C/CPFF	Nichols Adv Marine, VA	0.000	2.280	Various	8.923	Various	2.737	Various	Cont.	Cont.	N/A
	Comp	J.J. McMullen, VA	5.857	0.000	Various	0.172	Various					
	Various	Other Contractor	16.769	2.396	Various	8.755	Various	7.532	Various	Cont.	Cont.	N/A
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			42.026	9.936		36.448		14.722		Cont.	Cont.	N/A
Remarks:												
Development Support Equipment											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E,N/4			Ship Prelim Design & Feasibility Studies/0603564N			Ship Development (ADV)/S0408						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation											0.000	
Tooling											0.000	
GFE											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support											0.000	
Travel				0.033		0.110		0.200		Cont.	Cont.	N/A
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.000	0.033		0.110		0.200		Cont.	Cont.	N/A
Remarks:												
Total Cost			42.026	9.969		36.558		14.922		Cont.	Cont.	N/A
Remarks:												

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