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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0604311N: <i>LPD-17 Class Systems Integration</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	5.085	1.373	0.884	-	0.884	0.897	0.913	0.929	0.954	Continuing	Continuing
2283: <i>LPD-17 Class System Integration</i>	5.085	1.373	0.884	-	0.884	0.897	0.913	0.929	0.954	Continuing	Continuing

A. Mission Description and Budget Item Justification

The LPD 17 Class ships are functional replacements for 41 ships of four classes of amphibious ships. These new ships embark, transport, and land elements of Marine landing forces in an amphibious assault by helicopters, landing craft, and amphibious vehicles. Tactics, techniques, and tools for naval expeditionary warfare continue to evolve. The LPD 17 Class configuration must continue to adapt to this evolutionary process as these ships are expected to be in service until almost 2050. The LPD 17 design includes system configurations that reduce operating and support costs and facilitate operational performance improvements. The RDT&E,N funding will be used for system engineering and integration efforts to resolve obsolescence issues facing the LPD 17 class components, as well as develop further reductions in life cycle costs, and will integrate performance upgrades in a rapid, affordable manner. These efforts will result in well-defined specifications and drawings in system integration design packages that provide technical baselines for follow-on ship procurements. This program is funded under Engineering and Manufacturing Development because it encompasses engineering and manufacturing development of new end-items prior to production approval decision. Additionally, although operational testing ends in FY2008, funding is required in FY2010 for Follow On Test and Evaluation(FOT&E) as outlined in the Test and Evaluation Master Plan updates based on Initial Operational Test and Evaluation(IOT&E) Report findings. LSD(X) integration efforts began in FY2010. LSD(X) moved to RDTEN PE 0603564N Project 2474 starting in FY12 and out.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	5.282	1.373	2.780	-	2.780
Current President's Budget	5.085	1.373	0.884	-	0.884
Total Adjustments	-0.197	-	-1.896	-	-1.896
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.184	-			
• Program Adjustments	-	-	-1.893	-	-1.893
• Section 219 Reprogramming	-0.013	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.003	-	-0.003

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APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*
BA 5: *Development & Demonstration (SDD)*

R-1 ITEM NOMENCLATURE

PE 0604311N: *LPD-17 Class Systems Integration*

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

FY 12 funding for LSD replacement efforts moved to RDTEN PE 0603564N Project 2474

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604311N: <i>LPD-17 Class Systems Integration</i>				PROJECT 2283: <i>LPD-17 Class System Integration</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2283: <i>LPD-17 Class System Integration</i>	5.085	1.373	0.884	-	0.884	0.897	0.913	0.929	0.954	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The LPD 17 Class ships are functional replacements for 41 ships of four classes of amphibious ships. These new ships embark, transport, and land elements of Marine landing forces in an amphibious assault by helicopters, landing craft, and amphibious vehicles. Tactics, techniques, and tools for naval expeditionary warfare continue to evolve. The LPD 17 Class configuration must continue to adapt to this evolutionary process, because these ships are expected to be in service until almost 2050. The LPD 17 design includes system configurations that reduce operating and support costs and facilitate operational performance improvements. System engineering and integration efforts that began in FY 1997 will develop further reductions in life cycle costs and will integrate performance upgrades in a rapid, affordable manner. Possible improvements include advanced sensors, advanced computers, advanced command and control software, advanced information systems technologies, and ship based logistics concepts. Cost reduction and improved performance will be accomplished through sustained modeling and simulation efforts, continued personnel reductions efforts, system performance tradeoff evaluation, and naval expeditionary warfare systems engineering. Feedback from the operational forces for integrating system configurations will be accomplished through the Naval Expeditionary Warfare Centers in Quantico, Dahlgren, and Little Creek, Virginia. These efforts will result in well-defined specifications and drawings in system integration design packages that provide technical baselines for follow-on ship procurements. Additionally, although operational testing ends in FY2008, funding is required in FY2010 for Follow On Test and Evaluation (FOT&E) as outlined in the Test and Evaluation Master Plan updates based on Initial Operational Test and Evaluation(IOT&E) Report findings. LSD(X) integration efforts began in FY2010. LSD(X) moved to RD TEN PE 0603564N Project 2474 starting in FY2012 and out years.

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

	FY 2010	FY 2011	FY 2012
Title: LSD(X) Systems Integration	0.228	0.421	-
Articles:	0	0	
Description: LSD(X) Systems Integration. LSD(X) is a replacement for the retiring LSD 41 and LSD 49 Classes (that may be based in the LPD 17 hull form). RD TEN profile supports necessary preliminary efforts.			
FY 2010 Accomplishments: Preparation of documentation for Gate process and Defense Acquisition Board(DAB) to define the way ahead for LSD(R).			
FY 2011 Plans: Continue development of documentation for Gate Process and DAB.			
Title: Systems Engineering/Integration	0.941	0.952	0.884
Articles:	0	0	0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Description: Continuing Naval Expeditionary Warfare Systems Engineering efforts and integration efforts for unique LPD 17 Class systems, including efforts to resolve obsolescence issues impacting the class.</p> <p>FY 2010 Accomplishments: Conducting Bipolar Power Amplifier Unit (BPAU) Degaussing Controller Unit Reliability Study, SMART/SAN Antonio Study, and Ship Control System(SCS) Electronic Data Recorder (EDR) Analysis. Training System and Gap Analysis to identify and validate manpower and training, Operational Test Plan Development, Demonstration and Procedures Plan(DPP) Support, USMC Communication Exercise Support, LPD 17 JITC Certification/OPEVAL Support, Follow On Test and Evaluation (FOT&E) MARCORSSYSCOM Support, Advanced Enclosed Mast/Sensor (AEM/S) Access Study, and Radar Cross-Section Reduction (RCSR) Testing of MOGAS Rack.</p> <p>FY 2011 Plans: Continue the BPAU Degaussing Controller Unit Reliability Study, SMART/SAN Antonio Study, and SCS EDR Analysis. Continue the Training System process and GAP Analysis to identify and validate manpower and training, Operational Test Plan Development, DPP Support, USMC Communication Exercise Support, LPD 17 JITC Certification/OPEVAL Support, FOT&E MARCORSSYSCOM Support, AEM/S Access Study, and RCSR Testing of MOGAS Rack.</p> <p>FY 2012 Plans: Continue the BPAU Degaussing Controller Unit Reliability Study, SMART/San Antonio Study, and SCS EDAR Analysis. Continue the Training System process and GAP Analysis to identify and validate manpower and training, USMC Communication Exercise Support.</p>				
<p>Title: OT&E</p> <p>Description: Funding allows for operational test force support, range time, procurement of rounds/targets for testing, and other related costs as defined by the Test and Evaluation Master Plan updates based on Initial Operational Test and Evaluation(IOT&E) Report findings. FY2010 funding is for Follow On Test & Evaluation (FOT&E).</p> <p>FY 2010 Accomplishments: Started OPEVAL Report corrections, and designated FOT&E test events. These efforts will complete in FY11.</p>		<p>Articles:</p> <p>3.916 0</p>	-	-
Accomplishments/Planned Programs Subtotals		5.085	1.373	0.884

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604311N: <i>LPD-17 Class Systems Integration</i>	PROJECT 2283: <i>LPD-17 Class System Integration</i>

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>			<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• SCN/3036: <i>LPD 17 (Full Funding)</i>	869.394	0.000	1,847.444	0.000	1,847.444	0.000	54.000	38.000	25.000	0.000	2,833.838
• SCN/3036C: <i>LPD 17 (Advance Procurement)</i>	183.986	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	183.986
• SCN/5300: <i>Completion of Prior Year Shipbuilding Programs</i>	99.342	0.000	73.992	0.000	73.992	98.994	0.000	0.000	0.000	0.000	272.328

D. Acquisition Strategy

FY12 and out: continue developmental sole source efforts

E. Performance Metrics

LPD17 Class ships will conduct Follow On Test and Evaluation as outlined in the test and evaluation Master Plan. LSD(X) Systems Integration efforts begin the preparation of documentation for Analysis of Alternative and Milestone (MS) A documentation. LSD(X) funding moved to RD TEN PE 0603564N project 2474 starting in FY2012 and out years.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy **DATE:** February 2011

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Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
Systems Engineering and Integration	WR	NSWC Crane:NSWC Crane, IN	11.713	0.452	Dec 2010	0.384	Dec 2011	-		0.384	0.000	12.549	
Systems Engineering and Integration	C/CPFF	Raytheon Company:San Diego, CA	-	0.500	Dec 2010	0.500	Dec 2011	-		0.500	0.000	1.000	
LSD(X) Systems Integration (Next Gen.)	C/CPFF	CSC, Alion Science:Washington, DC	0.228	0.321	Dec 2010	-		-		-	0.000	0.549	
LSD(X) Systems Integration (Next Gen.)	WR	NSWC Carderock, NSWC Dahlgren:NSWC Beth, MD,NSWC Dahlgren, VA	-	0.100	Dec 2010	-		-		-	0.000	0.100	
LSD(X)Systems Integration (Next Gen.)	WR	PEO-C4I, PEO-IWS:Washigton, DC	-	-		-		-		-	0.000	0.000	
DAWF	Various	Various:Various	0.005	-		-		-		-	0.000	0.005	
Subtotal			11.946	1.373		0.884		-		0.884	0.000	14.203	

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
OT&E/Interoperability	WR	OPTEVFOR:WR	15.492	-		-		-		-	0.000	15.492	
Subtotal			15.492	-		-		-		-	0.000	15.492	

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			27.438	1.373		0.884		-		0.884	0.000	29.695	

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2283				
Deliverables (LPD 22)	4	2011	4	2011
Deliverables (LPD 23)	3	2012	3	2012
Deliverables (LPD 24)	2	2012	2	2012
Deliverables (LPD 25)	2	2013	2	2013
Deliverables (LPD 26)	1	2016	1	2016
FOT&E	2	2010	4	2012
Milestone III	3	2011	3	2011