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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605220N / (U)Ship to Shore Connector (SSC)
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	0.000	41.616	7.778	11.088	-	11.088	6.994	1.355	2.001	0.000	0.000	70.832
3133: <i>Ship to Shore Connectors Contract Design</i>	0.000	3.391	3.153	3.065	-	3.065	3.630	1.068	2.001	0.000	0.000	16.308
3137: <i>SSC Construction</i>	0.000	38.225	4.625	8.023	-	8.023	3.364	0.287	0.000	0.000	0.000	54.524

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 303

A. Mission Description and Budget Item Justification

Note: This effort was previously funded under PE 0604567N under projects 3133 and 3137 (FY 2014 and prior).

This PE directly funds and supports the detail design, development, construction, issue resolution, certification, integration and testing to include Live Fire Test and Evaluation (LFT&E) of the Ship to Shore Connector (SSC). The lead craft (Craft 100) will be maintained as a test and training platform throughout its life cycle.

SSC is an air-cushioned landing craft intended to transport personnel, weapon systems, equipment, and cargo from amphibious vessels to shore in assault and non-assault operations. 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 craft, including (SLEP) which begin to degrade below the Required Operational Capability/Projected Operational Environment (ROC/POE) requirement beginning in 2015. SSC addresses this capability gap.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>
Previous President's Budget	42.778	7.778	7.021	-	7.021
Current President's Budget	41.616	7.778	11.088	-	11.088
Total Adjustments	-1.162	0.000	4.067	-	4.067
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.162	0.000			
• Program Adjustments	0.000	0.000	4.231	-	4.231
• Rate/Misc Adjustments	0.000	0.000	-0.164	-	-0.164

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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605220N / (U) <i>Ship to Shore Connector (SSC)</i>	
Change Summary Explanation Cost/Funding: Increase in FY17 (\$4.700M) provided to meet requirements for T&E efforts, power upgrades, a composite repair capability, and Government responsible portion of cost growth on craft 100. Decrease in SSC RD TEN by \$0.469M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015. Technical: Not applicable. Schedule: Not applicable.		

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605220N / (U)Ship to Shore Connector (SSC)	Project (Number/Name) 3133 / Ship to Shore Connectors Contract Design
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3133: Ship to Shore Connectors Contract Design	0.000	3.391	3.153	3.065	-	3.065	3.630	1.068	2.001	0.000	0.000	16.308
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 303

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. SSC provides the functional replacement for the LCAC crafts, which begin reaching end of extended service life in 2015. For FY15 and beyond, this project will provide for Class Test and Evaluation of components and systems, as well as all programmatic effort and support activities necessary for the development and execution of Class T&E plans and programs.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Ship to Shore Connectors Contract Design	3.391	3.153	3.065	0.000	3.065
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Executed Class Test and Evaluation program, including Test Planning and Coordination, Interoperability Testing, Vulnerability Assessment Report (VAR), and Modeling and Simulation and Live Fire Test and Evaluation (LFT&E) component surrogate tests.					
FY 2016 Plans: Continue Class Test and Evaluation program, including Test Planning and Coordination, and LFT&E.					
FY 2017 Base Plans: Continue Class Test and Evaluation program, including Test Planning and Coordination, and LFT&E. Commence Integrated Development Test/Operational Test and VAR II.					
FY 2017 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	3.391	3.153	3.065	0.000	3.065

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605220N / (U)Ship to Shore Connector (SSC)	Project (Number/Name) 3133 / Ship to Shore Connectors Contract Design

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

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2017</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• RD TEN 3137: SSC Construction	38.225	4.625	8.023	-	8.023	3.364	0.287	0.000	0.000	0.000	54.524
• SCN 5112: Ship to Shore Connector	159.600	210.630	128.067	-	128.067	333.002	501.365	625.520	653.615	1,261.837	3,897.713

Remarks

D. Acquisition Strategy

The Test and Training craft (Craft 100) and Craft 101 have been executed on contract. Craft 100 will be procured and constructed with RD TEN. Craft 101 was awarded with RD TEN and transferred to SCN for completion. The Detail Design and Construction contract includes options for construction of an additional seven SCN craft, two of which have been awarded (LCAC 102 and LCAC 103). Award of remaining craft option (LCAC 104-107) in FY16.

E. Performance Metrics

Continue Operational Testing (Phases C and D).

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605220N / (U)Ship to Shore Connector (SSC)	Project (Number/Name) 3133 / Ship to Shore Connectors Contract Design

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3133				
Developmental Test/Operational Test (DT)	1	2015	3	2015
Low Rate Initial Production (LRIP) Approval	3	2015	3	2015
Acquisition Milestone C	3	2015	3	2015
Program Review (PR) (FY16)	1	2016	1	2016
Development Test/Operational Test C (DT/OT-C)	3	2015	1	2018
Development Test/Operational Test D (DT/OT-D)	3	2015	2	2020
Program Review (PR) (FY17)	2	2017	2	2017
Integrated Developmental Test/Operational Test	3	2017	1	2018
Operational Test Readiness Review (OTRR)	3	2018	3	2018
Initial Operational Test and Evaluation (IOT&E)	3	2018	3	2018
Full Rate Production (FRP) Program Review (PR)	4	2018	4	2018
Follow-On Operational Test and Evaluation (FOT&E)	2	2020	3	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605220N / (U)Ship to Shore Connector (SSC)				Project (Number/Name) 3137 / SSC Construction			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3137: SSC Construction	0.000	38.225	4.625	8.023	-	8.023	3.364	0.287	0.000	0.000	0.000	54.524
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: 303												

A. Mission Description and Budget Item Justification

Cost increase from FY 16 to FY 17 is due to financing Government responsible overruns on the Test and Training Craft

This project funds the Ship to Shore Connector (SSC) Engineering & Manufacturing Development phase which includes Detail Design and Construction, Product Support, Government Furnished Equipment (GFE), Program support, and Outfitting and Post Delivery. The lead craft will be maintained as a test and training platform throughout its life cycle. 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 craft, which begin reaching end of extended service life in 2015. Funding for this effort was previously executed under PE 0604567N.

TEST AND TRAINING CRAFT 100:

Plans/Basic Construction:
TOTAL 240.575 (FY17 0.000)
Change Orders:
TOTAL 16.261 (FY17 0.000)
Electronics
TOTAL 10.177 (FY17 0.050)
HM&E:
TOTAL 31.471 (FY17 1.285)
Other Support:
TOTAL 31.616 (FY17 2.688)
Ordnance
Total 0.050 (FY17 0.000)
Post Delivery/Outfitting:
TOTAL 4.000 (FY17 4.000)
Ship Total:
TOTAL 334.150 (FY17 8.023)

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605220N / (U)Ship to Shore Connector (SSC)	Project (Number/Name) 3137 / SSC Construction

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SSC Construction	38.225	4.625	8.023	0.000	8.023
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Executed procurement, planning and construction activities for Test and Training Craft 100.					
FY 2016 Plans: Continue procurement, planning, and construction activities for Test and Training Craft 100.					
FY 2017 Base Plans: Continue procurement, planning, and construction activities for Test and Training Craft 100 to facilitate a targeted delivery in Q3 FY17. Commence Test and Training Craft 100 Post Delivery Test and Trials (PDT&T).					
FY 2017 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	38.225	4.625	8.023	0.000	8.023

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• RDTEN 3133: Ship to Shore Connectors Contract Design	3.391	3.153	3.065	-	3.065	3.630	1.068	2.001	0.000	0.000	16.308
• SCN 5112: Ship to Shore Connector	159.600	210.630	128.067	-	128.067	333.002	501.365	625.520	653.615	1,261.837	3,897.713

Remarks

D. Acquisition Strategy
The Test and Training craft (Craft 100) and Craft 101 have been executed on contract. Craft 100 will be procured and constructed with RDTEN. Craft 101 was awarded with RDTEN and transferred to SCN for completion. The Detail Design and Construction contract includes options for construction of an additional seven SCN craft, two of which have been awarded (LCAC 102 and LCAC 103). Award of remaining craft option (LCAC 104-107) in FY16.

E. Performance Metrics
Deliver Test and Training Craft 100.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605220N / (U)Ship to Shore Connector (SSC)	Project (Number/Name) 3137 / SSC Construction
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Trng Craft Ship Design	C/CPFF	Various : Various	0.000	3.643	Dec 2014	0.000		0.000		-		0.000	0.000	3.643	-
Test & Trng Craft Detail Design/Construction	C/FPIF	Textron : New Orleans, LA	0.000	21.741	Mar 2015	0.000		0.000		-		0.000	0.000	21.741	-
Test & Trng Craft Government Furnished Equipment (GFE)	Various	Various : Various	0.000	0.663	Dec 2014	0.050	Oct 2015	0.050	Oct 2016	-		0.050	0.000	0.763	-
Test & Trng Craft Change Orders	C/FPIF	Textron : New Orleans, LA	0.000	8.485	Dec 2014	2.000	Oct 2015	0.000		-		0.000	0.000	10.485	-
Subtotal			0.000	34.532		2.050		0.050		-		0.050	0.000	36.632	-

Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Trng Craft Studies and Analysis	Various	Various : Various	0.000	0.521	Dec 2014	0.000	Oct 2015	0.568	Oct 2016	-		0.568	0.000	1.089	-
Test & Trng Craft Integrated Logistics Support	WR	NSWC : Various	0.000	0.741	Dec 2014	0.868	Oct 2015	2.051	Oct 2016	-		2.051	0.000	3.660	-
T&T Post Delivery/ Outfitting	Various	SSGC/Textron : Various	0.000	0.000		0.000		4.000	Mar 2017	-		4.000	0.000	4.000	-
Subtotal			0.000	1.262		0.868		6.619		-		6.619	0.000	8.749	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Trng Craft Construction Test Program	Various	Various : Various	0.000	1.222	Dec 2014	1.653	Oct 2015	1.285	Oct 2016	-		1.285	0.000	4.160	-
Subtotal			0.000	1.222		1.653		1.285		-		1.285	0.000	4.160	-

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3137				
Test and Training Craft Construction	1	2015	3	2017
Low Rate Initial Production (LRIP) Approval	3	2015	3	2015
Acquisition Milestone C	3	2015	3	2015
Program Review (PR) (FY16)	1	2016	1	2016
Test and Training Craft Delivery	3	2017	3	2017
Test and Training Craft Post Delivery Test and Trials (PDT&T)	3	2017	1	2018
Program Review (PR) (FY17)	2	2017	2	2017
Full Rate Production (FRP) Program Review (PR)	4	2018	4	2018

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