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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy	Date: May 2017
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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605220N I (U) <i>Ship to Shore Connector (SSC)</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	345.269	7.734	11.088	22.410	-	22.410	1.494	2.087	0.000	0.000	0.000	390.082
3133: <i>Ship to Shore Connectors Contract Design</i>	1.991	3.153	3.065	9.003	-	9.003	1.156	2.087	0.000	0.000	0.000	20.455
3137: <i>SSC Construction</i>	343.278	4.581	8.023	13.407	-	13.407	0.338	0.000	0.000	0.000	0.000	369.627

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 Service Life Extension Program(SLEP) which began 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 2016</u>	<u>FY 2017</u>	<u>FY 2018 Base</u>	<u>FY 2018 OCO</u>	<u>FY 2018 Total</u>
Previous President's Budget	7.778	11.088	6.994	-	6.994
Current President's Budget	7.734	11.088	22.410	-	22.410
Total Adjustments	-0.044	0.000	15.416	-	15.416
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.044	0.000			
• Program Adjustments	0.000	0.000	15.300	-	15.300

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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy				Date: May 2017	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
1319: Research, Development, Test & Evaluation, Navy I BA 5: System Development & Demonstration (SDD)		PE 0605220N I (U)Ship to Shore Connector (SSC)			
• Rate/Misc Adjustments	0.000	0.000	0.116	-	0.116
Change Summary Explanation					
FY 2018 increase for Ship to Shore Connector lead craft cost to complete (\$10 million) and Post Delivery Test & Trials (PDT&T) (\$5.3 million).					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
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			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
3133: Ship to Shore Connectors Contract Design	1.991	3.153	3.065	9.003	-	9.003	1.156	2.087	0.000	0.000	0.000	20.455
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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Ship to Shore Connectors Contract Design Articles: FY 2016 Accomplishments: Continue Class Test and Evaluation program, including Test Planning and Coordination, and LFT&E. FY 2017 Plans: Continue Class Test and Evaluation program, including Test Planning and Coordination, and LFT&E. FY 2018 Base Plans: ***Note: FY 2018 increase above FY 2017 is for Post Delivery Test & Trials (PDT&T)(\$5.3M) to demonstrate SSC's ability to meet the CDD requirements in an operational mission environment, validate full mission sorties, and support certification of readiness for IOT&E. Additional other increase for developmental test and evaluation efforts (\$0.6M). Continue Class T&E Program and commence execution of PDT&T on Craft 100, including Integrated Development Test/Operational Test and LFT&E to support VAR II. Post Delivery Test & Trials (PDT&T) will consist of planning and execution of 26 test events to validate first of class certification and performance								3.153	3.065	9.003	0.000	9.003
								-	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy				Date: May 2017	
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	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
<p>requirements, characterize the craft operational envelope, provide confidence to certify the craft readiness for IOT&E, and to verify SSC production and performance to support an FRPD. PDT&T tests will support the reliability growth program by conducting 240 hours of on-cushion operations and providing craft level failure data for use with the reliability growth model. The initiation of integrated Developmental and Operational Test and the continuation of LFT&E Events will support DOT&E's recommendation for Full Rate Production.</p> <p><i>FY 2018 OCO Plans:</i> N/A</p>					
Accomplishments/Planned Programs Subtotals	3.153	3.065	9.003	0.000	9.003

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• RD TEN 3137: SSC Construction	4.581	8.023	13.407	-	13.407	0.338	0.000	0.000	0.000	0.000	369.627
• SCN 5112: Ship to Shore Connector	210.630	318.067	217.654	-	217.654	332.521	335.432	335.483	343.745	1,590.004	3,843.136

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, all of which have been awarded (LCAC 102-108). Detailed Design and Construction contract for LCAC 102-108 ends in FY16. Crafts authorized for FY17-19 will be awarded on a new contract.

E. Performance Metrics
Continue Operation Testing (Phases C and D)
Continue testing of Follow on SCN Craft Production Testing

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy												Date: May 2017			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0605220N I (U)Ship to Shore Connector (SSC)				Project (Number/Name) 3133 I Ship to Shore Connectors Contract Design					
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Post Delivery Test & Trials	Various	SupShip Gulf Coast/ Textron : Various	0.000	0.000		0.000		5.300	Jan 2018	-		5.300	0.000	5.300	-
Developmental Test & Evaluation	Various	Various : Various	0.624	0.000		0.000		0.600	Oct 2017	-		0.600	0.000	1.224	Continuing
Operational Test & Evaluation	Various	Various : Various	0.869	0.898	Oct 2015	1.531	May 2017	1.544	May 2018	-		1.544	0.000	4.842	Continuing
Live Fire Test & Evaluation	Various	Various : Various	0.498	2.255	Oct 2015	1.534	May 2017	1.559	May 2018	-		1.559	0.000	5.846	Continuing
Subtotal			1.991	3.153		3.065		9.003		-		9.003	0.000	17.212	-
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1.991	3.153		3.065		9.003		-		9.003	0.000	17.212	-
Remarks															

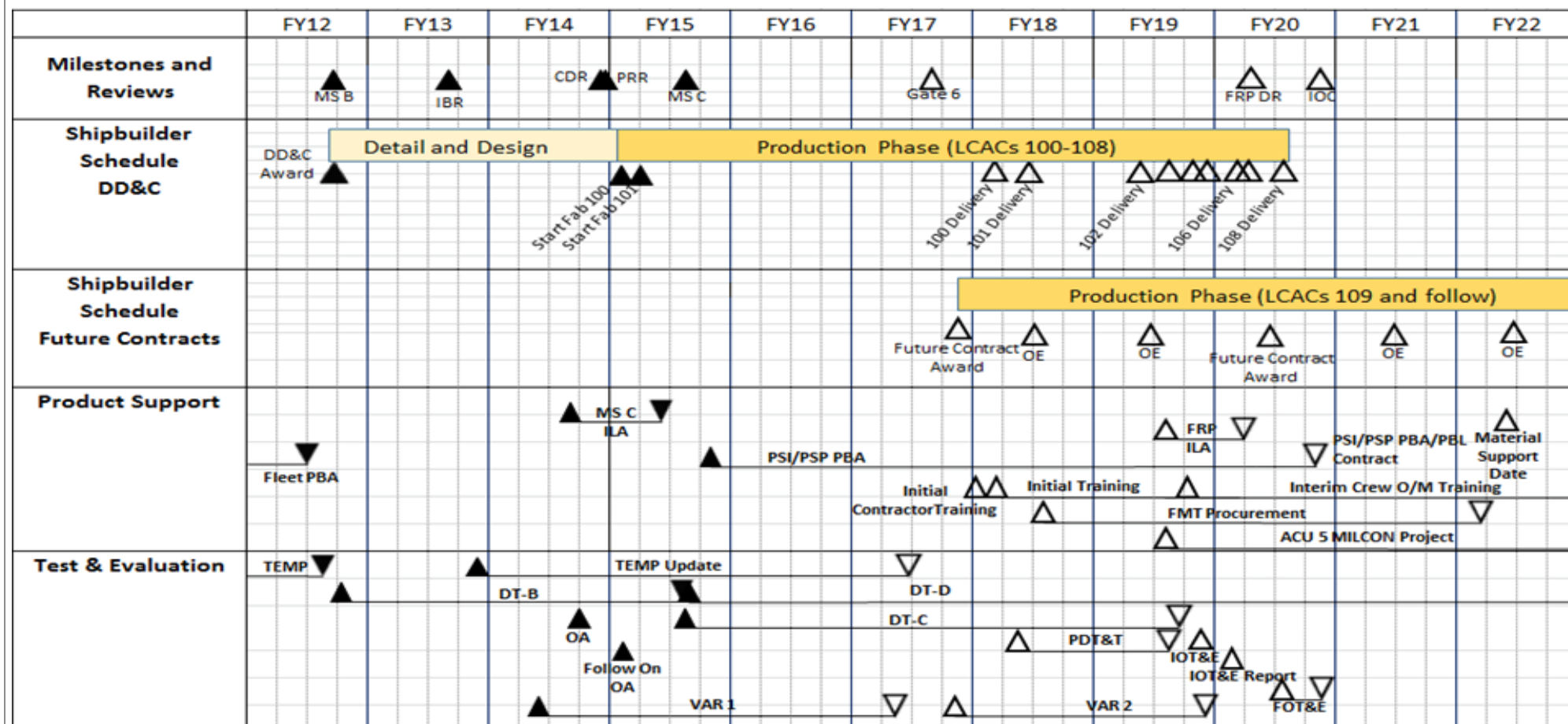
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PE 0605220N: (U)Ship to Shore Connector (SSC)
Navy

R-1 Line #156

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605220N I (U) <i>Ship to Shore Connector</i> (SSC)
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Project (Number/Name)
3133 / Ship to Shore Connectors Contract
Design



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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Navy		Date: May 2017
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				
Post Delivery Test & Trials (PDT&T)	2	2018	3	2019
Initial Operational Test and Evaluation (IOT&E)	4	2019	4	2019
Full Rate Production (FRP) Program Review (PR)	2	2020	2	2020

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
3137: SSC Construction	343.278	4.581	8.023	13.407	-	13.407	0.338	0.000	0.000	0.000	0.000	369.627
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: 303												
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, 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 began 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:.....256.805 - (FY18 5.793)												
Change Orders:.....13.069 - (FY18 0.000)												
Electronic:.....8.417 - (FY18 0.000)												
HM&E:.....29.768 - (FY18 3.154)												
Other Support:.....33.860 - (FY18 0.835)												
Ordnance:.....0.008 - (FY18 0.000)												
Post Delivery/Outfitting:.....4.000 - (FY18 3.625)												
Total:.....345.927 - (FY18 13.407)												
NOTE - The SSC Construction project unit prior year column (FY11-15) total funding is 343.278 for the SSC program. In the prior years FY11-14, the program was funded in PE 0604567N Ship Contract Design/Live Fire T&E. Funds breakout is as follows:												
LCAC 100												
PE 0604567N 279.863 FY11-14												
PE 0605220N 39.715 FY15												
LCAC 101												
PE 0604567N 23.700 FY13-14												

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017	
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)											
Title: SSC Construction Articles: FY 2016 Accomplishments: Continue procurement, planning, and construction activities for Test and Training Craft 100. FY 2017 Plans: Continue procurement, planning, and construction activities for Test and Training Craft 100 to facilitate a targeted delivery in Q1 FY18. FY 2018 Base Plans: ***Note: Cost to complete funds were added (\$10.0M) per the Program Manager's estimate at completion increasing the PB 2017 baseline of FY 2018 = \$3.4M to \$13.4M. Increase is for non-recurring engineering and design efforts, increased material costs, increased manufacturing overhead rates, and for contractor performance. Net increase in this PB 2018 cycle from FY2017 to FY2018 is \$5.384M. Continue Production Support and Test & Evaluation efforts. Begin Post Delivery Test and Trials (PDT&T) for craft 100. FY 2018 OCO Plans: N/A						FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	
						4.581 -	8.023 -	13.407 -	0.000 -	13.407 -	
Accomplishments/Planned Programs Subtotals						4.581	8.023	13.407	0.000	13.407	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• RDTEN 3133: Ship to Shore Connectors Contract Design	3.153	3.065	9.003	-	9.003	1.156	2.087	0.000	0.000	0.000	20.455
• SCN 5112: Ship to Shore Connector	210.630	318.067	217.654	-	217.654	332.521	335.432	335.483	343.745	1,590.004	3,843.136
Remarks											

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy		Date: May 2017
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
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, all of which have been awarded (LCAC 102-108). Detailed Design and Construction contract for LCAC 102-108 ends in FY16. Crafts authorized for FY17-19 will be awarded on a new contract.		
E. Performance Metrics Deliver Test and Training Craft 100.		

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy												Date: May 2017			
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					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	Various : Various	2.695	0.320	Oct 2016	0.734	Jul 2017	0.000		-		0.000	0.000	3.749	-
Test & Trng Craft Detail Design/Construction	C/FPIF	Textron : New Orleans, LA	27.146	1.178	Oct 2016	3.407	Jul 2017	5.793	Oct 2017	-		5.793	0.000	37.524	-
Test & Trng Craft Government Furnished Equipment (GFE)	Various	Various : Various	0.196	0.014	Oct 2015	0.050	Oct 2016	0.000		-		0.000	0.000	0.260	-
Test & Trng Craft Change Orders	C/FPIF	Textron : New Orleans, LA	6.323	0.980	Oct 2015	0.000		0.000		-		0.000	0.000	7.303	-
Prior Year - PE 0604567N	Various	Not Specified : Not Specified	272.356	0.000		0.000		0.000		-		0.000	0.000	272.356	-
Subtotal			308.716	2.492		4.191		5.793		-		5.793	0.000	321.192	-
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Trng Craft Studies and Analysis	Various	Various : Various	0.000	0.012	Oct 2015	0.322	Oct 2016	0.835	Oct 2017	-		0.835	0.000	1.169	-
Test & Trng Craft Integrated Logistics Support	WR	NSWC : Various	0.990	0.563	Oct 2015	2.392	Oct 2016	0.000		-		0.000	0.000	3.945	-
T&T Post Delivery/ Outfitting	Various	SupShip Gulf Coast/ Textron : Various	0.000	0.000		0.375	Mar 2017	3.625	Oct 2017	-		3.625	0.000	4.000	-
Prior Year - PE 0604567N	Various	Not Specified : Not Specified	6.149	0.000		0.000		0.000		-		0.000	0.000	6.149	-
Subtotal			7.139	0.575		3.089		4.460		-		4.460	0.000	15.263	-

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy												Date: May 2017			
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					
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	1.163	0.415	Oct 2015	0.000		3.154	Oct 2017	-		3.154	0.000	4.732	-
Prior Year - PE 0604567N	Various	Not Specified : Not Specified	2.268	0.000		0.000		0.000		-		0.000	0.000	2.268	-
Subtotal			3.431	0.415		0.000		3.154		-		3.154	0.000	7.000	-
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Trng Craft Contractor Engineering Support	C/CPFF	CSC/Alion : Washington, DC	0.891	1.000	Dec 2016	0.000		0.000		-		0.000	0.000	1.891	-
Travel	Various	Various : Various	0.100	0.099	Oct 2015	0.049	Oct 2016	0.000		-		0.000	0.000	0.248	-
Test & Trng Craft Government Engineering Support	WR	Various : Various	0.213	0.000		0.694	Oct 2016	0.000		-		0.000	0.000	0.907	-
Prior Year - PE 0604567N	Various	Not Specified : Not Specified	22.788	0.000		0.000		0.000		-		0.000	0.000	22.788	-
Subtotal			23.992	1.099		0.743		0.000		-		0.000	0.000	25.834	-
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			343.278	4.581		8.023		13.407		-		13.407	0.000	369.289	-
Remarks															
***Note: FY 2018 increase above FY 2017 is for non-recurring engineering and design efforts, increased material costs, increased manufacturing overhead rates, and for contractor performance. Cost to complete funds were added in FY 2018 (\$10.0M) per the Program Manager's estimate at completion. Net increase = \$5.384M.															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Navy

Date: May 2017

Appropriation/Budget Activity

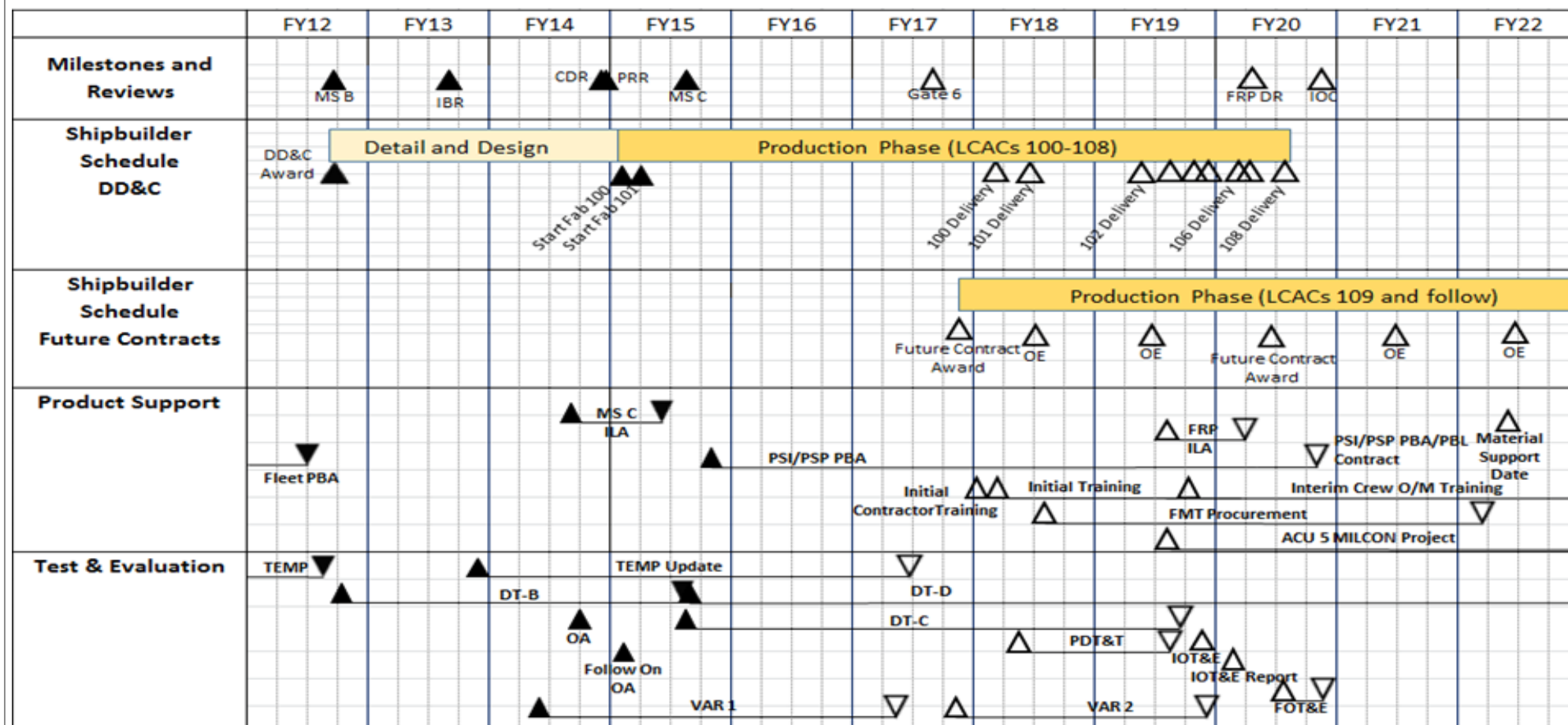
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R-1 Program Element (Number/Name)

PE 0605220N / (U)Ship to Shore Connector (SSC)

Project (Number/Name)

3137 / SSC Construction



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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Navy			Date: May 2017
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	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3137				
LCAC 100 - Test and Training Craft Delivery	1	2018	1	2018
Post Delivery Test and Trials (PDT&T)	2	2018	3	2019
Initial Operational Test and Evaluation (IOT&E)	4	2019	4	2019
Full Rate Production (FRP) Program Review (PR)	2	2020	2	2020