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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 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>
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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	40.769	8.007	3.332	15.805	-	15.805	11.645	8.863	9.076	9.283	Continuing	Continuing
0409: <i>DDG-51 Flt III Concept Development</i>	40.769	3.007	2.332	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	46.108
3377: <i>T-ATS (X) Ship Concept Development</i>	0.000	5.000	1.000	0.962	-	0.962	0.000	0.000	0.000	0.000	0.000	6.962
3389: <i>OPLOG IPT Development</i>	0.000	0.000	0.000	14.843	-	14.843	11.645	8.863	9.076	9.283	Continuing	Continuing

Program MDAP/MAIS Code: 180

A. Mission Description and Budget Item Justification

0409 - DDG 51 FLT III Concept Development - Develop Preliminary Analysis, Testing, and Design for introduction of DDG 51 FLT III in FY16.

3377 - The Navy requires ocean-going towing, salvage, and rescue capabilities to support Fleet operations. The Navy's current capabilities are provided by four T-ATF 166 class Fleet Tugs and four T-ARS 50 class Salvage ships which reach the end of their expected service lives starting in 2020 and 2025, respectively. The T-ATF Fleet Tugs perform towing at sea, salvage, and diving operations; act as a support ship for portable deep-diving equipment and submarine rescue operations; provide fire-fighting assistance; and perform oil spill pollution abatement. The T-ARS Salvage Ships perform combat salvage, lifting, emergency repair, and rescue towing of combatant or support ships damaged, stranded, scuttled, distressed, or abandoned at sea to repair yards or safe havens. The T-ATS(X) program will recapitalize the current Fleet Tugs and Salvage Ships with a common hull Towing, Salvage and Rescue Ship (T-ATS(X)) that is capable of performing the missions of the retiring T-ATF and T-ARS classes. RDT&E funding will provide for trade studies and program support leading to award of a Detail Design and Construction contract in FY17.

3389 - Naval Operational Logistics Integration (OPLOG) IPT Development - Develops enabling technologies for future and in-service afloat operational logistics and integrated supply force and combatant logistics requirements; and conducts cooperative initiatives with acquisition programs, program sponsors, engineering managers, the Navy science and technology community and Fleet customers. OPLOG develops integrated, cross-platform (i.e. applicable to more than one ship class/type) operational logistics and energy conservation technologies and capabilities as well as draft acquisition and operations policy ensuring future Naval systems leverage emerging logistic capabilities and technologies to provide operationally effective and energy efficient logistics delivery.

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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>
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B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	1.773	4.332	2.500	-	2.500
Current President's Budget	8.007	3.332	15.805	-	15.805
Total Adjustments	6.234	-1.000	13.305	-	13.305
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	6.255	0.000			
• SBIR/STTR Transfer	-0.021	0.000			
• Program Adjustments	0.000	0.000	14.298	-	14.298
• Rate/Misc Adjustments	0.000	0.000	-0.993	-	-0.993

Change Summary Explanation

Funding:

Decrease in Ship Preliminary Design and Feasibility Studies by \$0.048 million as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The Department moved FY17 and later funding from National Defense Sealift Fund (NDSF) PE 0408042N PRJ 3117 (Naval Operational Logistics Integration) to PE 0603564N PRJ 3389 (Naval Operational Logistics Integration IPT Development). FY 2015 amount (NDSF): \$10.963M. FY 16 amount (NDSF): \$17.927M. This project is not a new start.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>				Project (Number/Name) 0409 / <i>DDG-51 Flt III Concept Development</i>			
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
0409: <i>DDG-51 Flt III Concept Development</i>	40.769	3.007	2.332	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	46.108
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

DDG 51 FLT III Concept Development study - Funding provided to evaluate design options associated with FLT III cost and feasibility. The concepts were variants of the DDG 51 Flight IIA design and included incorporation of SPY-6 (AMDR).

DDG 51 FLT III Preliminary Design - Funding provided for preliminary design efforts associated with introduction of Flight III in FY16. Efforts included Finite Element Analysis (FEA) of the Deckhouse Structure, Electromagnetic Signatures, Electromagnetic Interference (EMI), Electromagnetic Pulse (EMP), and Radiation Hazard Analysis, Electrical Power capability increase and Distribution System analysis, Cooling Systems analysis, Topside Signature analysis, and Weight and Stability analysis.

DDG 51 FLT III Contract Design - Funding is provided beginning in FY 2013 to use the results from Preliminary Design to produce a technical package. This phase will develop contract drawings and specifications for the Detail Design and Construction contracts.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Proj:0409 DDG-51 Flt III Concept Development	3.007	2.332	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Developed functional design Government Furnished Information for combat systems. Continued technical data package development and system testing of High Efficiency Small-Compressor. Supported FLT III cost estimating.					
FY 2016 Plans: Incorporate SPY-6 Government Furnished Information updates. Incorporate HES-C Vendor Furnished Information updates. Complete modeling and analysis efforts.					
FY 2017 Base Plans: N/A					
FY 2017 OCO Plans:					

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 0409 / <i>DDG-51 Flt III Concept Development</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A					
Accomplishments/Planned Programs Subtotals	3.007	2.332	0.000	0.000	0.000

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>
• SCN/2122: <i>DDG 51 Class</i>	2,924.381	4,207.664	3,211.292	-	3,211.292	3,427.566	3,508.166	3,595.403	3,665.113	Continuing	Continuing
• SCN/5300: <i>Completion of PY Shipbuilding Programs (DDG 51)</i>	0.000	0.000	15.959	-	15.959	105.343	37.747	0.000	0.000	0.000	159.049

Remarks

D. Acquisition Strategy

DDG 51 FLT III concept development provides technical assistance to develop a design package that supports the award of a Flight III ECP. The DDG 51 Acquisition Strategy reflects the competitive award of the FY13-17 Multi-Year Procurement in a Flight IIA configuration, and supports Flight III upgrades beginning with one of the FY16 ships.

E. Performance Metrics

None

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 0409 / <i>DDG-51 Flt III Concept Development</i>
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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			
DDG 51 FLT III Concept Study	WR	NSWC : Dahlgren, VA	2.920	0.000		0.000		0.000		-		0.000	0.000	2.920	-
DDG 51 FLT III Concept Study	WR	NSWC : Carderock, MD	3.076	0.000		0.000		0.000		-		0.000	0.000	3.076	-
DDG 51 FLT III Concept Study	WR	SPAWAR : Charleston, SC	0.285	0.000		0.000		0.000		-		0.000	0.000	0.285	-
DDG 51 FLT III Concept Study	FFRDC	JHU : Baltimore, MD	1.447	0.000		0.000		0.000		-		0.000	0.000	1.447	-
DDG 51 FLT III Concept Study	MIPR	CPSD : Columbia, SC	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
DDG 51 FLT III Concept Study	C/CPAF	BIW : Bath, ME	0.376	0.000		0.000		0.000		-		0.000	0.000	0.376	-
DDG 51 FLT III Concept Study	WR	NRL : Washington, DC	0.164	0.000		0.000		0.000		-		0.000	0.000	0.164	-
DDG 51 FLT III Concept Study	C/CPAF	Ingalls : Pascagoula, MS	0.214	0.000		0.000		0.000		-		0.000	0.000	0.214	-
DDG 51 FLT III Concept Study	C/CPAF	Seaport : Washington, DC	4.819	0.000		0.000		0.000		-		0.000	0.000	4.819	-
DDG 51 FLT III Concept Study	MIPR	DTIC : Ft. Belvoir, VA	0.002	0.000		0.000		0.000		-		0.000	0.000	0.002	-
DDG 51 FLT III Concept Study	Various	Various : Washington, DC	1.653	0.000		0.000		0.000		-		0.000	0.000	1.653	-
DDG 51 FLT III Concept Study	WR	SPAWAR : San Diego, CA	0.244	0.000		0.000		0.000		-		0.000	0.000	0.244	-
DDG 51 FLT III Concept Study	WR	NAWC : Pax River, MD	0.025	0.000		0.000		0.000		-		0.000	0.000	0.025	-
DDG 51 FLT III Preliminary Design	WR	NSWC : Carderock, MD	5.373	0.000		0.000		0.000		-		0.000	0.000	5.373	-
DDG 51 FLT III Preliminary Design	C/CPAF	Seaport : Washington, DC	6.675	0.000		0.000		0.000		-		0.000	0.000	6.675	-
DDG 51 FLT III Preliminary Design	WR	NSWC : Dahlgren, VA	2.281	0.000		0.000		0.000		-		0.000	0.000	2.281	-

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 0409 / <i>DDG-51 Flt III Concept Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0409				
DDG-51 FLIGHT III CONCEPT DEVELOPMENT: DDG 51 FLT III Preliminary Design	1	2015	1	2015
DDG-51 FLIGHT III CONCEPT DEVELOPMENT: DDG 51 FLT III Contract Design	1	2015	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>				Project (Number/Name) 3377 / <i>T-ATS (X) Ship Concept Development</i>			
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
3377: <i>T-ATS (X) Ship Concept Development</i>	0.000	5.000	1.000	0.962	-	0.962	0.000	0.000	0.000	0.000	0.000	6.962
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

T-ATS(X) Design - Recapitalizes the existing T-ATF 166 Fleet Tug and T-ARS 50 Salvage Ship Classes with a common hull Towing, Salvage and Rescue Ship (T-ATS(X)) to support Fleet operations. The T-ATF Fleet Tugs perform towing at sea, salvage, and diving operations; act as a support ship for portable deep-diving equipment and submarine rescue operations; provide fire-fighting assistance; and perform oil spill pollution abatement. The T-ARS Salvage Ships perform combat salvage, lifting, emergency repair, and rescue towing of combatant or support ships damaged, stranded, scuttled, distressed, or abandoned at sea to repair yards or safe havens.

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 Concept Development	5.000	1.000	0.962	0.000	0.962
Articles:	-	-	-	-	-
Description: Ship Concept Development for future tug, salvage, and rescue mission capabilities.					
FY 2015 Accomplishments: Continued to provide engineering support for the T-ATS(X) design process and validation of requirements. Began Industry Design Studies RFP development. Coordinated efforts with NAVSEA, MSC, PEO Ships, CNO, ASN RD&A, OSD and Fleet.					
FY 2016 Plans: Complete source selection process, award multiple competitive Industry Studies, design contracts, oversee design phase, and begin preparation of Milestone B documentation. Coordinate efforts with NAVSEA, MSC, PEO Ships, CNO, ASN RD&A, OSD and Fleet.					
FY 2017 Base Plans: Finish documentation and conduct Milestone B. Issue Request for Proposal (RFP), conduct source selection, and award contract for Detail Design and Construction(DD&C) of the Lead Hull. Coordinate efforts with NAVSEA, MSC, PEO Ships, CNO, ASN RD&A, OSD and Fleet.					
FY 2017 OCO Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 3377 / <i>T-ATS (X) Ship Concept Development</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A					
Accomplishments/Planned Programs Subtotals	5.000	1.000	0.962	0.000	0.962

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>
• 5035: <i>T-ATS(X) Fleet Ocean Tug</i>	0.000	75.000	0.000	-	0.000	76.204	77.767	79.646	74.526	250.522	633.665

Remarks

D. Acquisition Strategy

The first T-ATS(X) will be awarded in FY17.

E. Performance Metrics

None.

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 3377 / <i>T-ATS (X) Ship Concept Development</i>
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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			
Engineering Support	Various	Alion/CSC/SPAWAR/NAVAIR/NSWC : DC, DC, Charleston, SC	0.000	1.500	Jan 2016	0.550	Jun 2016	0.590	Jan 2017	-		0.590	0.000	2.640	-
Industry Design Studies	Various	Various : Various	0.000	1.600	Apr 2016	0.000	Apr 2016	0.000	Jun 2017	-		0.000	0.000	1.600	-
Subtotal			0.000	3.100		0.550		0.590		-		0.590	0.000	4.240	-

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			
Milestone Documentation Support	C/FFP	CSC : DC	0.000	1.500	Jan 2016	0.100	Jan 2016	0.124	Jan 2017	-		0.124	0.000	1.724	-
RFP and Specification Development	Various	Alion/CSC/SPAWAR : DC, DC, Charleston, SC	0.000	0.210	Mar 2016	0.250	Jan 2016	0.148	Jan 2017	-		0.148	0.000	0.608	-
Test & Evaluation Planning	Various	OPTAVFOR, CSC, ALION : DC, CA, SC	0.000	0.190	Mar 2016	0.100	Jan 2016	0.100	Jan 2017	-		0.100	0.000	0.390	-
Subtotal			0.000	1.900		0.450		0.372		-		0.372	0.000	2.722	-

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	5.000	1.000	0.962	-	0.962	0.000	6.962	-

Remarks
\$1M of FY 15 funding realigned to support T-AO(X) T&E efforts.

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 3377 / <i>T-ATS (X) Ship Concept Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3377				
T-ATS(X) REQUIREMENTS APPROVED	2	2016	2	2016
T-ATS(X) RELEASE INDUSTRY STUDIES RFP	2	2016	2	2016
T-ATS(X) INDUSTRY STUDIES CONTRACT AWARD	3	2016	3	2016
T-ATS(X) RELEASE OF PHASE II RFP	1	2017	1	2017
POST-INDUSTRY STUDIES REQUIREMENTS REVIEW	4	2016	4	2016
T-ATS(X) SOURCE SELECTION	2	2017	3	2017
T-ATS(X) MILESTONE B	3	2017	3	2017
T-ATS(X) 1601 DD&C CONTRACT AWARD	3	2017	3	2017
T-ATS(X) 1801 OPTION AWARD	2	2018	2	2018
T-ATS(X) 1901 OPTION AWARD	2	2019	2	2019
T-ATS(X) 2001 OPTION AWARD	2	2020	2	2020
T-ATS(X) 2101 OPTION AWARD	2	2021	2	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>				Project (Number/Name) 3389 / <i>OPLOG IPT Development</i>			
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
3389: <i>OPLOG IPT Development</i>	0.000	0.000	0.000	14.843	-	14.843	11.645	8.863	9.076	9.283	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Prior to FY2017, Project 3389 was funded in PE 0408042N, National Defense Sealift Fund under Project 3117 Naval Operational Logistics Integration. This project is not a new start.

A. Mission Description and Budget Item Justification

Project 3389 - Develops enabling technologies for future and in-service afloat operational logistics and integrated supply systems; defines integrated combat logistics force and combatant logistics requirements; and conducts cooperative initiatives with acquisition programs, program sponsors, engineering managers, the Navy science and technology community, and Fleet customers. OPLOG develops integrated, cross-platform (i.e. applicable to more than one ship class/type) operational logistics and energy conservation technologies and capabilities as well as draft acquisition and operations policy ensuring future Naval systems leverage emerging logistic capabilities and technologies to provide operationally effective and energy efficient logistics delivery.

Though the operational logistics family of systems touches all aspects of Naval presence and power projection, operational logistics capability and system interfaces typically have been left to individual acquisition programs to develop and resolve. Technology development is necessary to mitigate technological and operational risk before ship acquisition programs accept new technologies. This project provides a foundation for the transition and systems development of science & technology initiatives evolving from the Office of Naval Research (ONR) Power & Energy Future Naval Capabilities (FNC), Enterprise and Platform Enablers FNC, Seabasing FNC, and from other enabling Government, industry and academia concepts to the acquisition community. Thus, this project resources continued research and development of appropriate technologies with applicability to multiple acquisition programs and defines and matures performance and interface requirements for those technologies. This project continues to identify, develop, integrate, demonstrate, and transition logistics technologies to improve the cost effectiveness of Fleet at sea logistics delivery through outreach, coordination and collaboration with industry, academia, Fleet, and Enterprise representatives.

This project will continue to develop improved shipboard replenishment, transfer, and handling systems and components as well as asset visibility and standardized packaging technologies. This project includes development of approaches to reduce operation and maintenance costs of the logistics Fleet. This integrated suite of developed capabilities will enable multiple ship types to leverage common technologies common across DoD (Joint) and commercial transportation networks providing a more affordable, energy efficient, mission capable force. These capabilities and system-of-systems approach will be applied to concept development of future auxiliary force architectures.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Advanced Systems	0.000	0.000	2.456	0.000	2.456

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p align="right">Articles:</p> <p>FY 2015 Accomplishments: N/A</p> <p>FY 2016 Plans: N/A</p> <p>FY 2017 Base Plans: Continue land-based testing of fueling station. Complete design of hybrid STREAM system for legacy CLF ships. Purchase and testing of prototype components for land-based testing to prove approach for modernization of installed Navy Standard UNREP stations.</p> <p>FY 2017 OCO Plans: N/A</p>	-	-	-	-	-
<p>Title: Logistics Architectures</p> <p align="right">Articles:</p> <p>FY 2015 Accomplishments: N/A</p> <p>FY 2016 Plans: N/A</p> <p>FY 2017 Base Plans: Conduct combat logistics force data collection and operational studies.</p> <p>FY 2017 OCO Plans: N/A</p>	0.000 -	0.000 -	0.050 -	0.000 -	0.050 -
<p>Title: Shipboard Energy Conservation</p> <p align="right">Articles:</p> <p>FY 2015 Accomplishments: N/A</p> <p>FY 2016 Plans:</p>	0.000 -	0.000 -	12.337 -	0.000 -	12.337 -

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A					
<i>FY 2017 Base Plans:</i> Continue energy management approach improvements, validation of energy savings from implementation of energy conservation measures, identification and evaluation of additional energy conservation concepts, transition of successful energy conservation measures to MSC, and coordination with other Navy energy conservation programs to leverage successful energy reduction approaches. Prototype purchase, installations, and testing planned for FY2017.					
<i>FY 2017 OCO Plans:</i> N/A					
Accomplishments/Planned Programs Subtotals	0.000	0.000	14.843	0.000	14.843

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

N/A

Remarks

D. Acquisition Strategy

Not applicable for OPLOG R&D efforts

E. Performance Metrics

Annual Program Review

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

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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			
Primary Hardware Development	Various	VARIOUS : Various	0.000	0.000		0.000		3.450	Jan 2017	-		3.450	Continuing	Continuing	Continuing
Ancillary Hardware Development	Various	VARIOUS : Various	0.000	0.000		0.000		1.796	Jan 2017	-		1.796	Continuing	Continuing	Continuing
Ship Integration	Various	VARIOUS : Various	0.000	0.000		0.000		1.700	Jan 2017	-		1.700	Continuing	Continuing	Continuing
Ship Suitability	Various	VARIOUS : Various	0.000	0.000		0.000		0.750	Jan 2017	-		0.750	Continuing	Continuing	Continuing
System Engineering	Various	VARIOUS : Various	0.000	0.000		0.000		1.500	Jan 2017	-		1.500	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		9.196		-		9.196	-	-	-

Remarks
Award dates reflect initial award of incremental execution.

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			
Development Support	Various	VARIOUS : Various	0.000	0.000		0.000		1.000	Jan 2017	-		1.000	Continuing	Continuing	Continuing
Integrated Logistics Support	Various	VARIOUS : Various	0.000	0.000		0.000		0.300	Jan 2017	-		0.300	Continuing	Continuing	Continuing
Configuration Management	Various	VARIOUS : Various	0.000	0.000		0.000		0.500	Jan 2017	-		0.500	Continuing	Continuing	Continuing
Technical Data	Various	VARIOUS : Various	0.000	0.000		0.000		0.800	Jan 2017	-		0.800	Continuing	Continuing	Continuing
Studies & Analysis	Various	VARIOUS : Various	0.000	0.000		0.000		0.400	Jan 2017	-		0.400	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		3.000		-		3.000	-	-	-

Remarks
Award dates reflect initial award of incremental execution.

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 3389 / <i>OPLOG IPT Development</i>
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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			
Developmental Test & Evaluation	Various	VARIOUS : Various	0.000	0.000		0.000		1.297	Jan 2017	-		1.297	Continuing	Continuing	Continuing
Operational Test & Evaluation	Various	VARIOUS : Various	0.000	0.000		0.000		1.000	Jan 2017	-		1.000	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		2.297		-		2.297	-	-	-

Remarks
Award dates reflect initial award of incremental execution.

Management Services (\$ 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			
Contractor Engineering Support	Various	VARIOUS : Various	0.000	0.000		0.000		0.100	Jan 2017	-		0.100	Continuing	Continuing	Continuing
Government Engineering Support	Various	VARIOUS : Various	0.000	0.000		0.000		0.250	Jan 2017	-		0.250	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		0.350		-		0.350	-	-	-

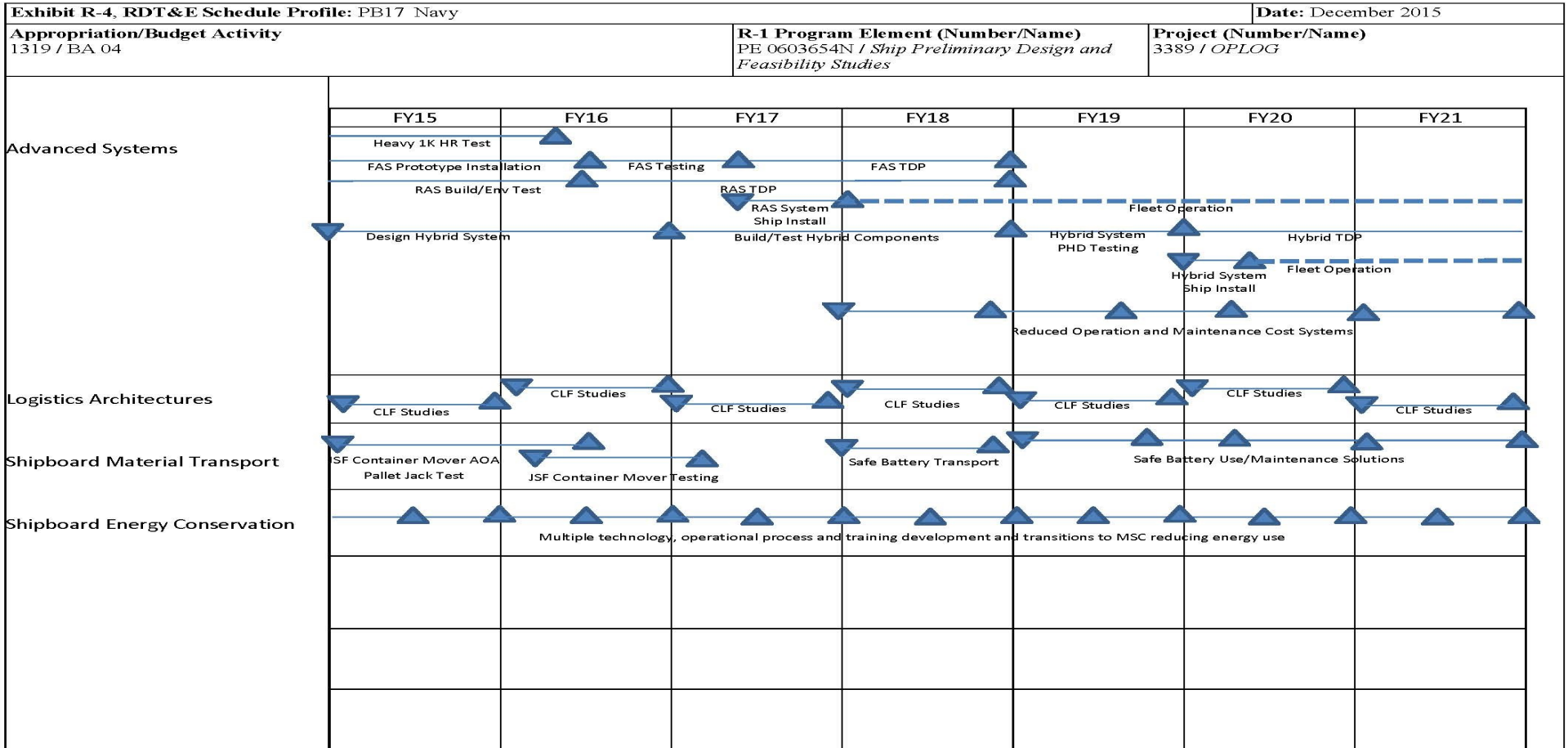
Remarks
Award dates reflect initial award of incremental execution.

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000	0.000	14.843	-	14.843	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 3389 / <i>OPLOG IPT Development</i>



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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 3389 / <i>OPLOG IPT Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3389				
Advanced Replenishment	1	2017	4	2021
Logistics Architectures	1	2017	4	2021
Shipboard Material Transport	1	2018	4	2021
Shipboard Energy Conservation	1	2017	4	2021