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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy	Date: February 2018
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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603564N I <i>Ship Prel Design & Feasibility Studies</i>											
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	3.646	13.451	12.012	13.348	-	13.348	22.534	9.320	9.494	9.687	Continuing	Continuing
3261: <i>TAGOS Design & Total Ship Integration</i>	0.000	0.000	12.012	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.012
3377: <i>T-ATS Ship Concept Development</i>	3.646	0.941	0.000	0.393	-	0.393	0.393	0.000	0.000	0.000	0.000	5.373
3389: <i>OPLOG IPT Development</i>	0.000	12.510	0.000	12.955	-	12.955	22.141	9.320	9.494	9.687	Continuing	Continuing

A. Mission Description and Budget Item Justification

The FY 2019 funding request was reduced by \$.139 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

3261 - T-AGOS Design & Total Ship Integration - Ocean surveillance ships gather underwater acoustical data to support the mission of the Integrated Undersea Surveillance System by providing a ship platform capable of theater anti-submarine acoustic passive and active surveillance. Auxiliary General Ocean Surveillance Ships (T-AGOS) are operated by Military Sealift Command to support the anti-submarine warfare mission of the commanders of the Atlantic and Pacific Fleets. The two current classes of surveillance ships use surveillance towed-array sensor system (SURTASS) equipment to gather undersea acoustic data. The ships also carry electronic equipment to process and transmit that data via satellite to shore stations for evaluation. Funding will support recapitalization of the four SWATH (T-19 Class) and one SWATH (T-23 Class) Auxiliary General Ocean Surveillance ships (T-AGOS). Funding for FY19 to FY23 was transferred to PE 0204313N (Ship-Towed Array Surveillance Systems).

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 program will recapitalize the current Fleet Tugs and Salvage Ships with a common hull Towing, Salvage and Rescue Ship (T-ATS) that is capable of performing the missions of the retiring T-ATF and T-ARS classes.

3389 - Naval Operational Logistics (OPLOG) Integration 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)

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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy I 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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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.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	15.805	12.012	18.990	-	18.990
Current President's Budget	13.451	12.012	13.348	-	13.348
Total Adjustments	-2.354	0.000	-5.642	-	-5.642
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.354	0.000			
• Program Adjustments	0.000	0.000	-5.611	-	-5.611
• Rate/Misc Adjustments	0.000	0.000	-0.031	-	-0.031
• Congressional Directed Reductions Adjustments	-2.000	-	-	-	-

Change Summary Explanation

FY 19 changes include:

1. FY19 reduction in T-AGOS (Project 3261) due to transfer to new PE 0204313N (Ship-Towed Array Surveillance Systems)
2. Increase in OPLOGINT (Project 3389) due to transfer from NDSF and adding funding for the development of a Robust Expeditionary Fuel System.

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy									Date: February 2018			
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies				Project (Number/Name) 3261 / TAGOS Design & Total Ship Integration			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3261: TAGOS Design & Total Ship Integration	0.000	0.000	12.012	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.012
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Note Funding for FY19 to FY23 was transferred to PE 0204313N.												
A. Mission Description and Budget Item Justification T-AGOS Design & Total Ship Integration - Ocean surveillance ships gather underwater acoustical data to support the mission of the Integrated Undersea Surveillance System by providing a ship platform capable of theater anti-submarine acoustic passive and active surveillance. Auxiliary General Ocean Surveillance Ships (T-AGOS) are operated by Military Sealift Command to support the anti-submarine warfare mission of the commanders of the Atlantic and Pacific Fleets. The two current classes of surveillance ships use surveillance towed-array sensor system (SURTASS) equipment to gather undersea acoustic data. The ships also carry electronic equipment to process and transmit that data via satellite to shore stations for evaluation. Funding will support recapitalization of the four SWATH (T-19 Class) and one SWATH (T-23 Class) Auxiliary General Ocean Surveillance ships (T-AGOS).												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	
Title: T-AGOS Design & Total Ship Integration Articles:							0.000	12.012	0.000	0.000	0.000	
							-	-	-	-	-	
FY 2018 Plans: Prepare and initiate staffing and approval for initial acquisition planning documents. Conduct Gate 2 to initiate development of the Capability Development Document (CDD). Conduct trade studies to support the development of a Pre-preliminary Design. Develop SURTASS interface documentation. Develop Request for Proposal (RFP) for Industry Studies to support the Navy led Preliminary Design. Prepare Milestone A Documentation. Coordinate acquisition efforts with NAVSEA, MSC, PEO SHIPS, CNO, ASN RD&A, OSD, and Fleet. FY 2019 Base Plans: Funding for FY19 to FY23 was transferred to PE 0204313N. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: February 2018							
Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>		Project (Number/Name) 3261 / <i>TAGOS Design & Total Ship Integration</i>							
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total			
P/U 3261's Funding for FY19 to FY23 was transferred to PE 0204313N.											
Accomplishments/Planned Programs Subtotals				0.000	12.012	0.000	0.000	0.000			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• SCN/5030: <i>T-AGOS Surtass Ships</i>	0.000	0.000	0.000	-	0.000	0.000	0.000	343.244	369.000	901.000	1,613.244
Remarks											
D. Acquisition Strategy											
Develop CDD, conduct trade studies and Pre-Preliminary Design in FY18. Issue RFP for Industry Studies for award of multiple contracts in FY19 to participate in Navy-led Preliminary/Contract Design (PD/CD) efforts. Complete Navy-led PD/CD efforts in FY21 in order to issue Detail Design and Construction (DD&C) RFP and award to a single shipbuilder in FY22 for DD&C of a Lead Ship with options for up to four follow-on ships.											
E. Performance Metrics											
None.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies				Project (Number/Name) 3261 / TAGOS Design & Total Ship Integration					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Engineering Integration/ Design	Various	Various : Various	0.000	0.000		4.613	Feb 2018	0.000		-		0.000	0.000	4.613	-
Model Testing	Various	Various : Various	0.000	0.000		1.162	Jun 2018	0.000		-		0.000	0.000	1.162	-
SURTASS Integration	Various	various : various	0.000	0.000		2.000	Feb 2018	0.000		-		0.000	0.000	2.000	-
Subtotal			0.000	0.000		7.775		0.000		-		0.000	0.000	7.775	N/A
Remarks Funding for FY19 to FY23 was transferred to PE 0204313N.															
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
MS documentation prep & RFP Development	Various	Various : Various	0.000	0.000		1.300	Feb 2018	0.000		-		0.000	0.000	1.300	-
Specification & TDP Development	Various	Various : Various	0.000	0.000		1.537	Feb 2018	0.000		-		0.000	0.000	1.537	-
Systems Integration (C4I/ Safety/Risk)	Various	Various : Various	0.000	0.000		1.000	Feb 2018	0.000		-		0.000	0.000	1.000	-
Subtotal			0.000	0.000		3.837		0.000		-		0.000	0.000	3.837	N/A
Remarks Funding for FY19 to FY23 was transferred to PE 0204313N.															
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 and Evaluation Planning	Various	Various : Various	0.000	0.000		0.400	Feb 2018	0.000		-		0.000	0.000	0.400	-
Subtotal			0.000	0.000		0.400		0.000		-		0.000	0.000	0.400	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>					Project (Number/Name) 3261 / <i>TAGOS Design & Total Ship Integration</i>				

Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Remarks Funding for FY19 to FY23 was transferred to PE 0204313N.															
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals				0.000	0.000		12.012		0.000		-	0.000	0.000	12.012	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity

1319 / 4

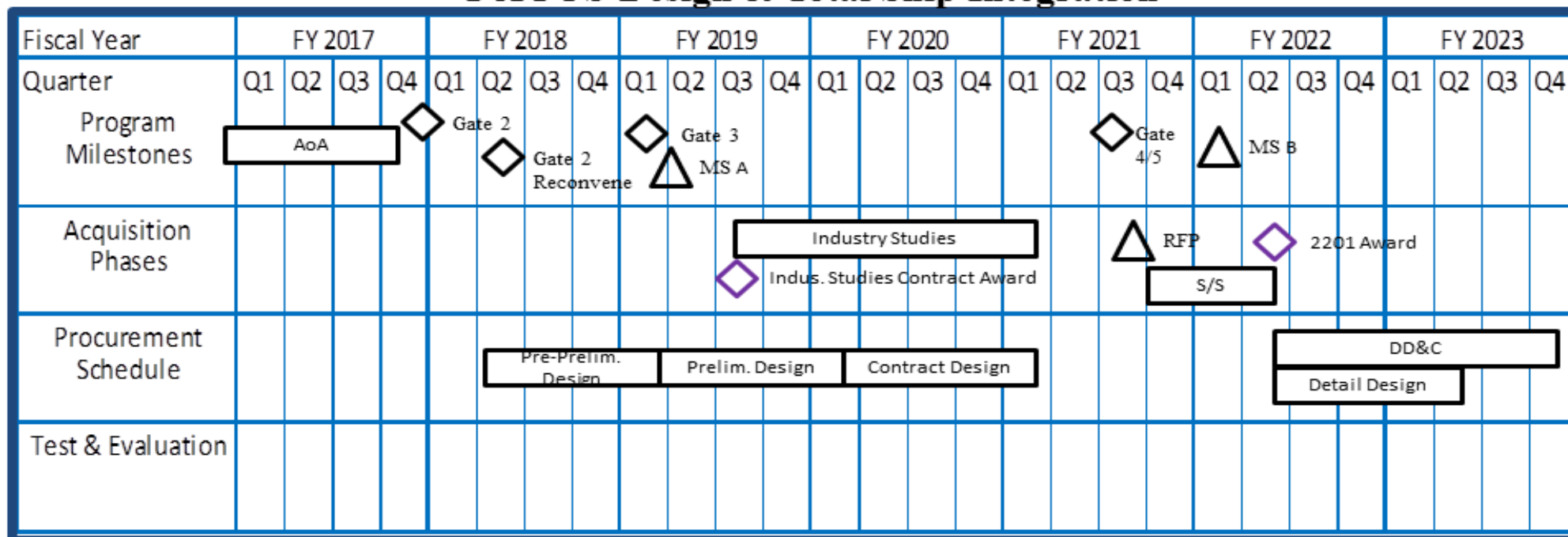
R-1 Program Element (Number/Name)

PE 0603564N / *Ship Prel Design & Feasibility Studies*

Project (Number/Name)

3261 / *TAGOS Design & Total Ship Integration*

T-AGOS Design & Total Ship Integration



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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / <i>Ship Prel Design & Feasibility Studies</i>	Project (Number/Name) 3261 / <i>TAGOS Design & Total Ship Integration</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 3261</i>				
Gate 3	1	2019	1	2019
Milestone B	1	2022	1	2022
DD&C Award	2	2022	2	2022

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies				Project (Number/Name) 3377 / T-ATS Ship Concept Development			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3377: T-ATS Ship Concept Development	3.646	0.941	0.000	0.393	-	0.393	0.393	0.000	0.000	0.000	0.000	5.373
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
T-ATS 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) 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. Funding supports Ship Concept Development and Test & Evaluation (T&E) for future tug, salvage, and rescue mission capabilities.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: Ship Concept Development Articles: Description: Ship Concept Development and Test & Evaluation (T&E) for future tug, salvage, and rescue mission capabilities. FY 2018 Plans: N/A FY 2019 Base Plans: Support the execution of Test and Evaluation Phase Developmental Test (DT) schedule per the Test and Evaluation Master Plan (TEMP). Coordinate efforts with NAVSEA, Military Sealift Command (MSC), PEO Ships, Operational Test and Evaluation Force (OPTEVFOR) , Joint Interoperability Test Command (JITC) and OSD Director of Operational Test & Evaluation (ODT&E). FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: FY19 increase in P/U 3377 is due to T&E, which typically starts 1-2 years after contract award.								0.941	0.000	0.393	0.000	0.393
								-	-	-	-	-
Accomplishments/Planned Programs Subtotals								0.941	0.000	0.393	0.000	0.393

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018	
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 Ship Concept Development</i>			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2019</u>	<u>FY 2019</u>	<u>FY 2019</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Complete</u>	<u>Total Cost</u>
• SCN/5035: <i>Towing, Salvage and Rescue Ship (T-ATS)</i>	0.000	76.204	80.517	-	80.517	153.248	74.376	75.053	76.597	22.884	633.879
Remarks											
D. Acquisition Strategy											
Contract will be awarded February 2018.											
E. Performance Metrics											
None.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies				Project (Number/Name) 3377 / T-ATS Ship Concept Development					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Engineering Support	Various	NAVAIR/NSWC/ SPAWAR : MD, MD, SC	0.200	0.569	Aug 2017	0.000		0.000		-		0.000	0.000	0.769	-
Industry Design Studies	Various	Various : Various	0.679	0.000	Aug 2017	0.000		0.000		-		0.000	0.000	0.679	-
Subtotal			0.879	0.569		0.000		0.000		-		0.000	0.000	1.448	N/A
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Milestone Documentation Support	C/FFP	CSRA : DC	1.917	0.124	Aug 2017	0.000		0.000		-		0.000	0.000	2.041	-
RFP and Specification Development	Various	Alion/CSRA/ SPAWAR : DC, DC, SC	0.560	0.148	Aug 2017	0.000		0.000		-		0.000	0.000	0.708	-
Test & Evaluation Planning	Various	OPTEVFOR, CSC, ALION : VA, DC	0.290	0.100	Aug 2017	0.000		0.000		-		0.000	0.000	0.390	-
Subtotal			2.767	0.372		0.000		0.000		-		0.000	0.000	3.139	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Integrated Test & Evaluation	C/FFP	COMOPTEVFOR : VA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Development Test & Evaluation	C/FFP	Various : Various	0.000	0.000		0.000		0.393	Mar 2019	-		0.393	0.393	0.786	-
Subtotal			0.000	0.000		0.000		0.393		-		0.393	0.393	0.786	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy										Date: February 2018			
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 Ship Concept Development</i>			
	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.646	0.941		0.000		0.393		-		0.393	0.393	5.373	N/A
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy

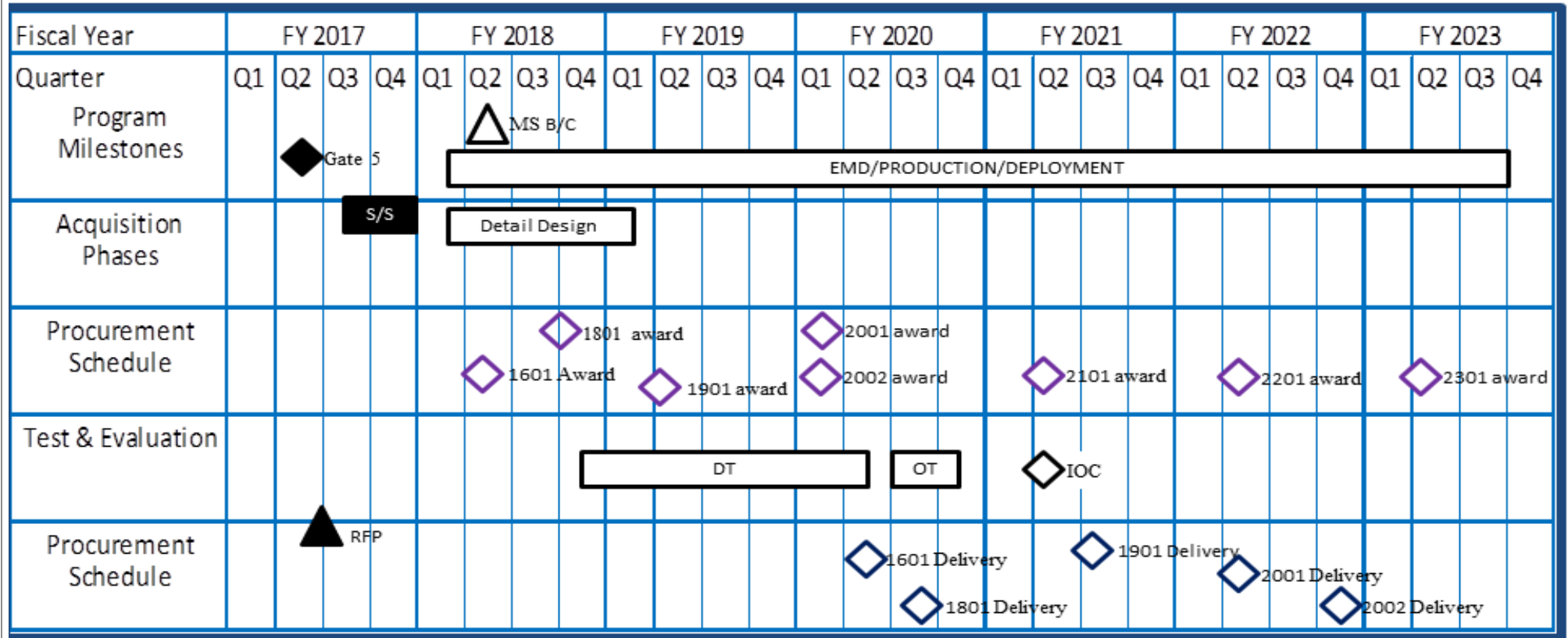
Date: February 2018

Appropriation/Budget Activity
1319 / 4

R-1 Program Element (Number/Name)
PE 0603564N / *Ship Prel Design & Feasibility Studies*

Project (Number/Name)
3377 / *T-ATS Ship Concept Development*

T-ATS Design & Total Ship Integration



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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
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 Ship Concept Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 3377</i>				
MILESTONE B/C	2	2018	2	2018
DT/OT	4	2018	4	2020
IOC	2	2021	2	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies				Project (Number/Name) 3389 / OPLOG IPT Development			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3389: OPLOG IPT Development	0.000	12.510	0.000	12.955	-	12.955	22.141	9.320	9.494	9.687	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Note												
FY2016 and prior year efforts were financed under PE 0408042N, National Defense Sealift Fund (NDSF) BA 04, Project 3117 Naval Operational Logistics (OPLOG) Integration. FY2017, FY2019 and out-years are financed under this program element. 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, and energy consumption by 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.												
FY18 efforts were financed under NDSF,N BA04 Project												

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: February 2018		
Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies		Project (Number/Name) 3389 / OPLOG IPT Development		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: Advanced Systems		1.943	0.000	5.800	0.000	5.800
Articles:		-	-	-	-	-
FY 2018 Plans: N/A						
FY 2019 Base Plans: Research, development, and testing of advanced refueling systems and concepts to include performing relevant-testing of JOFF and REFS systems and complete detailed design in preparation for FY20 full-scale prototype fabrication and evaluation.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: Increase result of program requirements moving from BA04 PE0408042N, National Defense Sealift Fund (NDSF) Project 3117 Naval Operational Logistics (OPLOG) Integration (FY16 and prior and FY18) to this budget for FY19 and follow.						
Title: Logistics Architectures		0.050	0.000	0.050	0.000	0.050
Articles:		-	-	-	-	-
FY 2018 Plans: N/A						
FY 2019 Base Plans: Conduct combat logistics force data collection and operational studies.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: Increase result of program requirements moving from BA04 PE0408042N, National Defense Sealift Fund (NDSF) Project 3117 Naval Operational Logistics (OPLOG) Integration (FY16 and prior and FY18) to this budget for FY19 and follow.						
Title: Shipboard Energy Conservation (E-STREAM)		5.000	0.000	1.119	0.000	1.119
Articles:		-	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: February 2018		
Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies		Project (Number/Name) 3389 / OPLOG IPT Development		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
FY 2018 Plans: N/A						
FY 2019 Base Plans: Continue energy management approach improvements including efficient ESTREAM system and components. Data package development and prototype purchase, installations, and testing for energy initiatives including efficient shipboard replenishment at sea (RAS)Hybrid E-STREAM planned for FY 2019.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: Increase result of program requirements moving from BA04 PE0408042N, National Defense Sealift Fund (NDSF) Project 3117 Naval Operational Logistics (OPLOG) Integration (FY16 and prior and FY18) to this budget for FY19 and follow.						
Title: Shipboard Energy Conservation (Other)		5.517	0.000	5.986	0.000	5.986
Articles:		-	-	-	-	-
FY 2018 Plans: N/A						
FY 2019 Base Plans: Continue energy management approach improvements including validation of energy savings from implementation of energy conservation measures, identification and evaluation of additional energy conservation concepts, transition of successful energy conservation measures of MSC and coordination with other Navy energy conservation programs to leverage successful energy reduction approaches.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: Increase result of program requirements moving from BA04 PE0408042N, National Defense Sealift Fund (NDSF) Project 3117 Naval Operational Logistics (OPLOG) Integration (FY16 and prior and FY18) to this budget for FY19 and follow.						
Accomplishments/Planned Programs Subtotals		12.510	0.000	12.955	0.000	12.955

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018	
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>			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2019</u>	<u>FY 2019</u>	<u>FY 2019</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Complete</u>	<u>Total Cost</u>
• NDSF/0408042N/3117: 3117/Naval Operational Logistics Integration	0.000	11.729	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	29.656
Remarks FY18 and out funds realigned to the NDSF appropriation BA05 PE 0408042N RDTE PRJ 3117											
D. Acquisition Strategy Not applicable for OPLOG R&D efforts											
E. Performance Metrics Annual Program Review											

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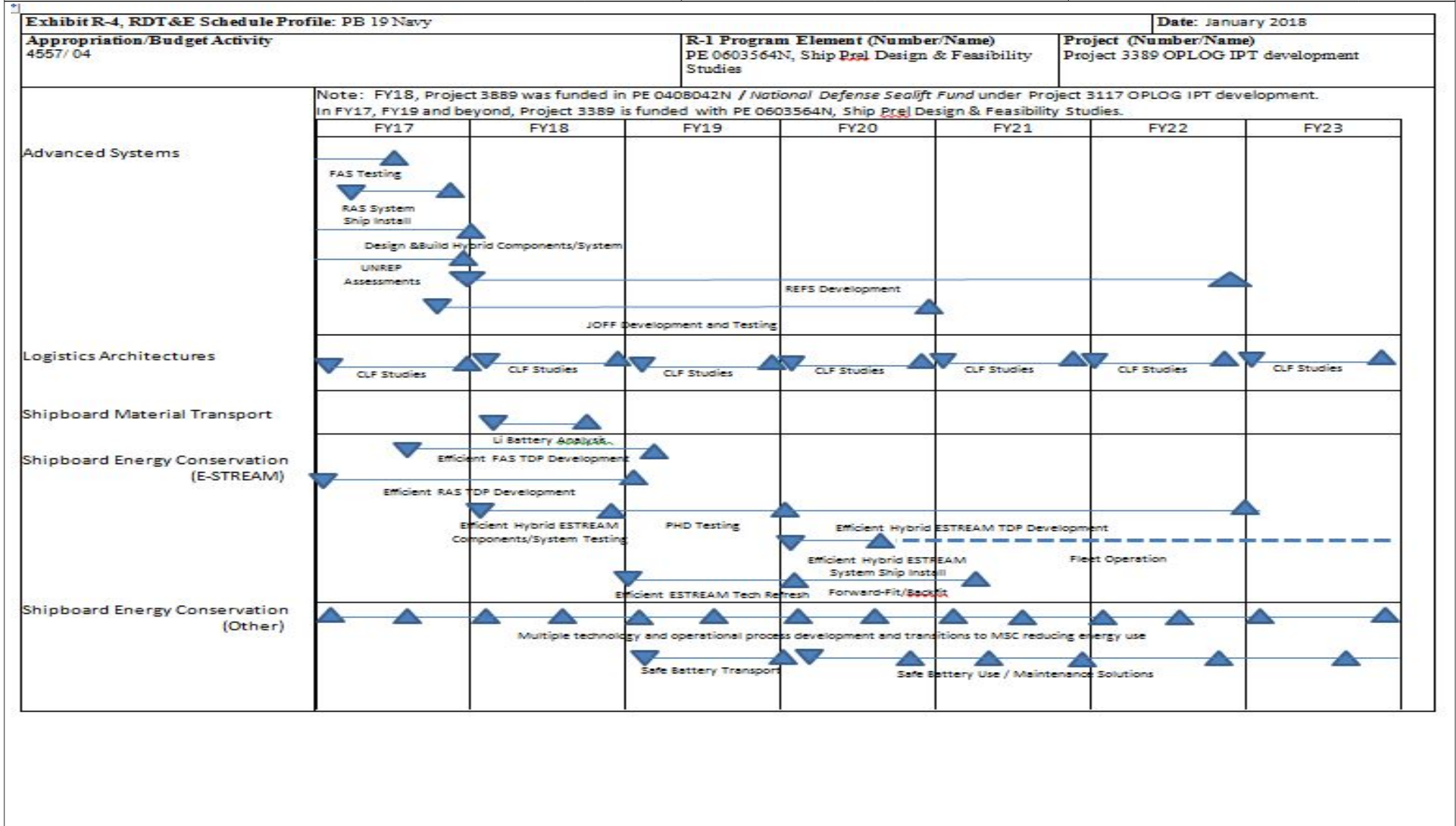
Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies				Project (Number/Name) 3389 / OPLOG IPT Development					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Primary Hardware Development	Various	VARIOUS : Various	0.000	2.650	Jan 2017	0.000		5.357	Jan 2019	-		5.357	Continuing	Continuing	Continuing
Ancillary Hardware Development	Various	VARIOUS : Various	0.000	1.296	Jan 2017	0.000		1.500	Jan 2019	-		1.500	Continuing	Continuing	Continuing
Ship Integration	Various	VAROUS : Various	0.000	1.200	Jan 2017	0.000		0.600	Jan 2019	-		0.600	Continuing	Continuing	Continuing
Ship Suitability	Various	VARIOUS : Various	0.000	0.750	Jan 2017	0.000		0.500	Jan 2019	-		0.500	Continuing	Continuing	Continuing
System Engineering	Various	VARIOUS : Various	0.000	1.250	Jan 2017	0.000		0.940	Jan 2019	-		0.940	Continuing	Continuing	Continuing
Subtotal			0.000	7.146		0.000		8.897		-		8.897	Continuing	Continuing	N/A
Remarks															
Award dates reflect initial award of incremental execution.															
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Development Suopt	Various	VARIOUS : Various	0.000	0.750	Jan 2017	0.000		0.900	Jan 2019	-		0.900	Continuing	Continuing	Continuing
Software Development	Various	VARIOUS : Various	0.000	0.000		0.000		0.050	Jan 2019	-		0.050	Continuing	Continuing	Continuing
Integrated Logistics Support	Various	VARIOUS : Various	0.000	0.300	Jan 2017	0.000		0.350	Jan 2019	-		0.350	Continuing	Continuing	Continuing
Configuration Management	Various	VARIOUS : Various	0.000	0.500	Jan 2017	0.000		0.400	Jan 2019	-		0.400	Continuing	Continuing	Continuing
Technical Data	Various	VAROUS : Various	0.000	0.800	Jan 2017	0.000		0.600	Jan 2019	-		0.600	Continuing	Continuing	Continuing
Studies & Analysis	Various	VARIOUS : Various	0.000	0.367	Jan 2017	0.000		0.135	Jan 2019	-		0.135	Continuing	Continuing	Continuing
Subtotal			0.000	2.717		0.000		2.435		-		2.435	Continuing	Continuing	N/A
Remarks															
Award dates reflect initial award of incremental execution.															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies				Project (Number/Name) 3389 / OPLOG IPT Development					
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Developmental Test & Evaluation	Various	VARIOUS : Various	0.000	1.297	Jan 2017	0.000		0.700	Jan 2019	-		0.700	Continuing	Continuing	Continuing
Operational Test & Evaluation	Various	VARIOUS : Various	0.000	1.000	Jan 2017	0.000		0.573	Jan 2019	-		0.573	Continuing	Continuing	Continuing
Subtotal			0.000	2.297		0.000		1.273		-		1.273	Continuing	Continuing	N/A
Remarks															
Award dates reflect initial award of incremental execution.															
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Contractor Engineering Support	Various	VARIOUS : Various	0.000	0.100	Jan 2017	0.000		0.100	Jan 2019	-		0.100	Continuing	Continuing	Continuing
Government Engineering Support	Various	VARIOUS : Various	0.000	0.250	Jan 2017	0.000		0.250	Jan 2019	-		0.250	Continuing	Continuing	Continuing
Subtotal			0.000	0.350		0.000		0.350		-		0.350	Continuing	Continuing	N/A
Remarks															
Award dates reflect initial award of incremental execution.															
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	12.510		0.000		12.955		-		12.955	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies	Project (Number/Name) 3389 / OPLOG IPT Development	



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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
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
<i>Proj 3389</i>				
Advanced Systems	1	2017	4	2023
Logistics Architectures	1	2017	4	2023
Shipboard Energy Conservation (E-STREAM)	1	2017	4	2023
Shipboard Energy Conservation (Other))	1	2017	4	2023