Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 4: Advanced

PE 0603564N / Ship Prel Design & Feasibility Studies

Component Development & Prototypes (ACD&P)

, ,	<i>,</i> ,	,										
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	62.905	37.380	1.773	4.332	-	4.332	2.500	2.500	-	-	-	111.390
0409: DDG-51 Flt III Concept Development	30.015	10.959	1.773	3.332	-	3.332	-	-	-	-	-	46.079
2474: LX(R) Design & Total Ship Integration	7.923	15.356	-	-	-	-	-	-	-	-	-	23.279
3377: T-ATS (X) Ship Concept Development	0.000	-	-	1.000	-	1.000	2.500	2.500	-	-	-	6.000
9999: Congressional Adds	24.967	11.065	-	-	-	-	-	-	-	-	-	36.032

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.

2474 - LX(R) is expected to functionally replace LSD-41 Class ships and LSD-49 Class ships for embark, transport, control, insert, sustainment, and extract of Marine Air-Ground Task Force elements and supporting forces by helicopters, landing craft, and amphibious vehicles. Efforts are required to identify viable alternatives, including examining a reduced cost variant of LPD-17 Class. Efforts include all Gate and Milestone (MS) documentation, Capabilities Development Documentation (CDD), and Indicative Design (ID). Program is on track to support FY26 retirement of LSDs. LX(R) is financed in RDTEN PE 0604454N Project 2474 in FY15 and out.

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.

NDSF BA 04 Project 3117 prior year amounts: FY 2014: \$20.024M

C253 - Develop concept studies, ship design, and trade off studies in support of recapitalization of the existing T-AO 187 Fleet Oiler Class. The Navy's Combat Logistics Force (CLF) oilers supply fuel and dry cargo to Navy ships at sea. The T-AO(X) will operate as a shuttle ship from resupply ports to customer ships. Additionally, in

PE 0603564N: Ship Prel Design & Feasibility Studies

Navy

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 4: Advanced Component Development & Prototypes (ACD&P)

PE 0603564N I Ship Prel Design & Feasibility Studies

conjunction with a T-AKE Dry Cargo/Ammunition Ship, they will accompany and stay on-station with a Carrier Strike Group (CSG) to provide fuel as required to customer ships.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	38.117	23.716	29.895	-	29.895
Current President's Budget	37.380	1.773	4.332	-	4.332
Total Adjustments	-0.737	-21.943	-25.563	-	-25.563
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-21.943			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.737	-			
 Program Adjustments 	-	-	-25.427	-	-25.427
 Rate/Misc Adjustments 	-	-	-0.136	-	-0.136

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 9999: Congressional Adds

Congressional Add: T-AO(X) - Cong

	FY 2014	FY 2015
	11.065	-
Congressional Add Subtotals for Project: 9999	11.065	-
Congressional Add Totals for all Projects	11.065	-

Change Summary Explanation

Funding:

- 1. FY 16 funding previously programmed under PRJ 0408 is now budgeted under PE 0603581N (Littoral Combat Ship) Project 3096 (Littoral Combat Ship).
- 2. The Department moved FY 16 and later funding for PRJ 3377 not associated with T-ATS(X) development back to NDSF BA 04 to comply with Congressional intent

Administrative: Renamed project 3377 (T-ATS(X) Ship Concept Development) from Naval Operational Logistics Integration

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-2A, RDT&E Project J	ustification:	PB 2016 N	lavy							Date: Feb	ruary 2015	
Appropriation/Budget Activity 1319 / 4					_	am Elemen 64N / Ship F Studies	•	•		umber/Nar G-51 Flt III	ne) Concept De	velopment
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0409: DDG-51 Flt III Concept Development	30.015	10.959	1.773	3.332	-	3.332	-	-	-	-	-	46.079
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

DDG 51 FLT III Concept Development study - Funding is provided to evaluate design options associated with FLT III. Ship concepts were developed to determine 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 is for preliminary design efforts associated with introduction of Flight III in FY16. The current plan will support the Finite Element Analysis (FEA) of the Deckhouse Structure, EMX Analysis, which will include Electromagnetic Signatures, Electromagnetic Interference (EMI), Electromagnetic Pulse (EMP), and Radiation Hazard. It will also include Electrical Power capability increase and Distribution analysis, Cooling Systems analysis, Topside Signature testing, and Weight and Stability analysis and life cycle margin improvement.

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

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2016	FY 2016	FY 2016
	FY 2014	FY 2015	Base	oco	Total
Title: Proj:0409 DDG-51 Flt III Concept Development	10.959	1.773	3.332	-	3.332
Articles:	-	-	-	-	-
FY 2014 Accomplishments:					
Completed Preliminary Design. Continue Contract Design efforts to support release of Request for Proposal					
package for shipbuilders to bid. Develop functional design Government Furnished Information for combat					
systems. Develop Engineering Change Proposal (ECP) packages to the level necessary to award Detail Design					
contracts. Support cost estimating. Continue development of Land Based Engineering Site modifications,					
equipment installation and preliminary testing.					
FY 2015 Plans:					
Continue to develop functional design Government Furnished Information for combat systems. Update ECP					
packages as necessary to compete and award shipbuilding contracts. Support cost estimating. Continue					
development of Land Based Engineering Site modifications, equipment installation and preliminary testing.					
FY 2016 Base Plans:					

PE 0603564N: Ship Prel Design & Feasibility Studies

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: Febru	uary 2015		
1	R-1 Program Element (Number/I PE 0603564N / Ship Prel Design & Feasibility Studies	•	- 3 (umber/Nam 6-51 Flt III C	- /	velopmen	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in	n Each)			FY 2016	FY 2016	FY 2016	-

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2016	FY 2016	FY 2016
	FY 2014	FY 2015	Base	oco	Total
Incorporate Government Furnished Information updates from SPY-6. Perform technical analysis of design changes. Complete final review, modeling and analysis efforts.					
FY 2016 OCO Plans:					
Accomplishments/Planned Programs Subtotals	10.959	1.773	3.332	-	3.332

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

			FY 2016	FY 2016	FY 2016					Cost To	
<u>Line Item</u>	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
 SCN/2122: DDG 51 Class 	1,985.115	2,795.946	3,149.703	-	3,149.703	3,353.936	3,440.080	3,543.571	3,633.657	Continuing	Continuing
SCN/5300: Completion of PY	100.000	129.144	75.014	-	75.014	-	46.084	-	-	-	350.242
Shipbuilding Programs (DDG 51)											

Remarks

D. Acquisition Strategy

DDG 51 FLT III concept development provides technical assistance to develop a design package that supports the competitive 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

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy

Date: February 2015 R-1 Program Element (Number/Name)

Appropriation/Budget Activity 1319 / 4

PE 0603564N / Ship Prel Design &

Project (Number/Name)

Feasibility Studies

0409 I DDG-51 Flt III Concept Development

Product Developmen	t (\$ in M	illions)		FY 2	2014	FY 2	2015		2016 ise	1	2016 CO	FY 2016 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	Total Cost	Target Value of Contract
DDG 51 FLT III Concept Study	WR	NSWC : Dahlgren, VA	2.920	-		-		-		-		-	-	2.920	-
DDG 51 FLT III Concept Study	WR	NSWC : Carderock, MD	3.076	-		-		-		-		-	-	3.076	-
DDG 51 FLT III Concept Study	WR	SPAWAR : Charleston, SC	0.285	-		-		-		-		-	-	0.285	-
DDG 51 FLT III Concept Study	FFRDC	JHU : Baltimore, MD	1.447	-		-		-		-		-	-	1.447	-
DDG 51 FLT III Concept Study	MIPR	CPSD : Columbia, SC	0.000	-		-		-		-		-	-	-	-
DDG 51 FLT III Concept Study	C/CPAF	BIW : Bath, ME	0.376	-		-		-		-		-	-	0.376	-
DDG 51 FLT III Concept Study	WR	NRL : Washington, DC	0.164	-		-		-		-		-	-	0.164	-
DDG 51 FLT III Concept Study	C/CPAF	Ingalls : Pascagoula, MS	0.214	-		-		-		-		-	-	0.214	-
DDG 51 FLT III Concept Study	C/CPAF	Seaport : Washington, DC	4.819	-		-		-		-		-	-	4.819	-
DDG 51 FLT III Concept Study	MIPR	DTIC : Ft. Belvoir, VA	0.002	-		-		-		-		-	-	0.002	-
DDG 51 FLT III Concept Study	Various	Various : Washington, DC	1.653	-		-		-		-		-	-	1.653	-
DDG 51 FLT III Concept Study	WR	SPAWAR : San Diego, CA	0.244	-		-		-		-		-	-	0.244	-
DDG 51 FLT III Concept Study	WR	NAWC : Pax River, MD	0.025	-		-		-		-		-	-	0.025	-
DDG 51 FLT III Preliminary Design	WR	NSWC : Carderock, MD	4.925	0.448	Jan 2014	-		-		-		-	-	5.373	-
DDG 51 FLT III Preliminary Design	C/CPAF	Seaport : Washington, DC	6.157	0.518	Feb 2014	-		-		-		-	-	6.675	-
DDG 51 FLT III Preliminary Design	WR	NSWC : Dahlgren, VA	2.057	0.224	May 2014	-		-		-		-	-	2.281	-

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy

R-1 Program Element (Number/Name)

Project (Number/Name)

Appropriation/Budget Activity 1319 / 4

PE 0603564N / Ship Prel Design &

0409 I DDG-51 Flt III Concept Development

Date: February 2015

Feasibility Studies

Product Developmen	nt (\$ in M	illions)		FY 2	2014	FY 2	2015		2016 ise	FY 2	2016 CO	FY 2016 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 Contrac
DDG 51 FLT III Preliminary Design	C/CPAF	BIW : Bath, ME	0.535	0.095	May 2014	-		-		-		-	-	0.630	-
DDG 51 FLT III Preliminary Design	C/CPAF	Ingalls : Pascagoula, MS	0.535	0.095	May 2014	-		-		-		-	-	0.630	-
DDG 51 FLT III Contract Design	WR	NSWC : Dahlgren, VA	0.000	0.395	Aug 2014	-		-		-		-	-	0.395	-
DDG 51 FLT III Contract Design	WR	NSWC : Carderock, MD	0.181	3.799	Apr 2014	-		-		-		-	-	3.980	-
DDG 51 FLT III Contract Design	C/CPAF	Ingalls : Pascagoula, MS	0.000	0.205	May 2014	-		-		-		-	-	0.205	-
DDG 51 FLT III Contract Design	C/CPAF	Seaport : Washington, DC	0.400	4.975	Jun 2014	1.773	Feb 2015	3.332	Dec 2015	-		3.332	-	10.480	-
DDG 51 FLT III Contract Design	C/CPAF	BIW : Bath, ME	0.000	0.205	May 2014	-		-		-		-	-	0.205	-
		Subtotal	30.015	10.959		1.773		3.332		-		3.332	-	46.079	-
			Prior Years	FY 2	2014	FY 2	2015		2016 ise	FY 2	2016 CO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
			Years	FY 2	2014	FY 2	2015	Ва	ise	00	<i>:</i> 0	Total	Complete		st

	Prior Years	FY 2014	FY 20	015	FY 20 Bas	FY 2	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	30.015	10.959	1.773		3.332	-	3.332	-	46.079	-

Remarks

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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opriatio / 4	n/Budget Activity	avy																						e: Fe			201	5	
									PE	1 Pro 060 asibil	3564	N / S	Ship					ne)						er/Na Flt II			ept E	Deve	lopn
		l	FY	201	4		FY	201	5		FY	2016	i		FY 2	2017			FY 2	2018	3		FY 2	2019			FY	2020)
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
roj 0409																													
	FLIGHT III CONCEPT DPMENT: DDG 51 FLT III Preliminary																												
	FLIGHT III CONCEPT DPMENT: DDG 51 FLT III Contract																												
DDG-51 DEVELC	FLIGHT III CONCEPT DPMENT: DDG 51 FY16 Ship Appropriated																												

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
1	,	- , (umber/Name) G-51 Flt III Concept Development

Schedule Details

	St	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Proj 0409					
DDG-51 FLIGHT III CONCEPT DEVELOPMENT: DDG 51 FLT III Preliminary Design	1	2014	1	2014	
DDG-51 FLIGHT III CONCEPT DEVELOPMENT: DDG 51 FLT III Contract Design	1	2014	1	2016	
DDG-51 FLIGHT III CONCEPT DEVELOPMENT: DDG 51 FY16 Ship Funding Appropriated	1	2016	1	2016	

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2016 N	lavy							Date: Feb	ruary 2015	
Appropriation/Budget Activity 1319 / 4	n/Budget Activity R-1 Program Elem PE 0603564N / Shij Feasibility Studies					64N I Ship F	, , , , ,					
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
2474: LX(R) Design & Total Ship Integration	7.923	15.356	-	-	-	-	-	-	-	-	-	23.279
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

2474 - LX(R) is expected to functionally replace LSD-41 Class ships and LSD-49 Class ships for embark, transport, control, insert, sustainment, and extract of Marine Air-Ground Task Force elements and supporting forces by helicopters, landing craft, and amphibious vehicles. Efforts are required to identify viable alternatives, including examining a reduced cost variant of LPD-17 Class. Efforts include all Gate and Milestone (MS) documentation, Capabilities Development Documentation (CDD), and Indicative Design (ID). Program is on track to support FY26 retirement of LSDs. LX(R) is financed in RDTEN PE 0604454N Project 2474 in FY15 and out.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2016	FY 2016	FY 2016
	FY 2014	FY 2015	Base	oco	Total
Title: LX(R) DESIGN/TOTAL SHIP INTEGRATION	15.356	-	-	-	-
Articles:	-	-	_	-	-
FY 2014 Accomplishments:					
Completed Analysis of Alternatives (AoA). Conducted Alternative Systems Review. Continued Navy staffing					
of Capabilities Development Document (CDD). Continued developing documentation to support Gate 2 and					
Milestone A, including Service Cost Position (SCP), Cost Analysis Requirements Description (CARD), Program					
Protection Plan (PPP), Systems Engineering Plan (SEP), Reliability, Availability, Maintainability-Cost (RAM-C)					
Report, Test & Evaluation Master Plan (TEMP), Life Cycle Sustainment Plan (LCSP), Acquisition Strategy (AS),					
etc. Began Indicative Design (ID), and continued shipbuilding industry studies. Preparing for Gate 2.					
FY 2015 Plans:					
N/A					
FY 2016 Base Plans:					
N/A					
FY 2016 OCO Plans:					
N/A					
Accomplishments/Planned Programs Subtotals	15.356	-	-	-	-

PE 0603564N: Ship Prel Design & Feasibility Studies

Navy

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Exhibit R-2A, RDT&E Project Justi	fication: PB	2016 Navy							Date: Fel	oruary 2015	
Appropriation/Budget Activity 1319 / 4				PE 06	_	nent (Numb nip Prel Desi	•		(Number/Na K(R) Design	Integration	
C. Other Program Funding Summa	ry (\$ in Milli	ons)									
			FY 2016	FY 2016	FY 2016					Cost To	
<u>Line Item</u>	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
RDTEN/0604454N: Amphibious	-	36.859	46.486	-	46.486	28.690	12.410	9.470	9.703	Continuing	Continuing
Ship Replacement LX(R) • SCN/3010: Amphibious Ship Replacement LX(R)	-	-	-	-	-	-	-	170.751	1,624.107	Continuing	Continuing

Remarks

D. Acquisition Strategy

Predecisional, expect competition will be part of the acquisition strategy after MS A.

E. Performance Metrics

Predecisional, performance metrics will be developed in parallel with the CDD.

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy

Appropriation/Budget Activity

1319 / 4

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

Feasibility Studies

Date: February 2015

Project (Number/Name) 2474 I LX(R) Design & Total Ship Integration

FY 2016 FY 2016 FY 2016 **Product Development (\$ in Millions)** FY 2014 FY 2015 Base oco Total Contract Target Method Performing Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** Activity & Location Date & Type Years Cost Cost Date Cost Date Cost Date Complete Cost Contract Cost Design/Systems CSC, Alion, ICI: C/CPIF 4.150 7.001 Mar 2014 11.151 Integration Washington, DC Design/Systems NSWC Carderock : WR 1.348 2.266 Mar 2014 3.614 Integration Bethesda, MD Design/Systems NSWC Dahlgren: WR 0.380 0.200 Apr 2014 0.580 Integration Dahlgren, VA Design/Systems PEO C4I. PEO IWS: WR 1.445 0.450 Jun 2014 1.895 Washington, DC Integration NSWC, Port Design/Systems WR Hueneme: Port 0.000 0.070 Apr 2014 0.070 Integration Hueneme, CA Design/SI (Shipbuilder HII, General C/CPFF 0.600 5.369 Apr 2014 5.969 Participation) **Dvnamics**: Various Subtotal 7.923 15.356 23.279

	Prior Years	FY 2	014	Y 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	7.923	15.356		-	-	-	-	-	23.279	-

Remarks

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy			Date: February 2015
1	, ,	- , (umber/Name) R) Design & Total Ship Integration

Fiscal Year		20	014			2	015			2	016			20	017			2	018			2	019	1		20	20	
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Analysis of Alternatives (AoA)			_																									
Capabilities Development Documentation (CDD)																												
Acquisition Milestones																												
Indicative Design			<u> </u>		_																							

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
, · · · · · · · · · · · · · · · · · · ·	, ,	- , (umber/Name) R) Design & Total Ship Integration

Schedule Details

	St	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Proj 2474					
Analysis of Alternatives (AoA)	1	2014	3	2014	
Indicative Design	3	2014	4	2014	

Exhibit R-2A, RDT&E Project Ju	ustification	: PB 2016 N	Navy							Date: Feb	ruary 2015	
Appropriation/Budget Activity 1319 / 4						am Elemen 64N / Ship F Studies	•	umber/Name) TS (X) Ship Concept ent				
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3377: T-ATS (X) Ship Concept Development	-	-	-	1.000	-	1.000	2.500	2.500	-	-	-	6.000
Quantity of RDT&E Articles		-	-	_	-	-	-	-	-	-		

Note

FY 2015 and prior year T-ATS(X) Ship Concept Development funding was budgeted in National Defense Sealift Fund (NDSF) Appropriation, BA 04 PE 0408042N under Project 3117 Naval Operational Logistics Integration.

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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Ship Concept Development Articles:	-	-	1.000	-	1.000
Description: Ship Concept Development for future tug, salvage, and rescue mission capabilities.	_	_	_	_	_
FY 2014 Accomplishments: N/A					
FY 2015 Plans: N/A					
FY 2016 Base Plans: Complete source selection process, award multiple competitive phase I design contracts, oversee design phase, and begin preparation of Milestone B documentation.					
FY 2016 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	_	-	1.000	-	1.000

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PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
1319 / 4	PE 0603564N / Ship Prel Design &	3377 <i>I T-A</i>	TS (X) Ship Concept
	Feasibility Studies	Developme	ent

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

			FY 2016	FY 2016	FY 2016					Cost Io	
Line Item	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
 SCN/5035: T-ATS(X) 	-	-	-	-	-	74.848	76.653	153.073	80.254	-	384.828
Fleet Ocean Tug											

Remarks

D. Acquisition Strategy

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

E. Performance Metrics

None.

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy

Appropriation/Budget Activity

1319 / 4

R-1 Program Element (Number/Name)
PE 0603564N / Ship Prel Design & 3377 / T-ATS (X) Ship Concept
Development

Product Developmer	duct Development (\$ in Millions)			FY 2	2014	FY 2	2015	FY 2 Ba	2016 ise	FY 2		FY 2016 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	Various	Alion/CSC/SPAWAR/ NAVAIR/NSWC : DC, DC, Charleston, SC	0.000	-		-		0.750	Jan 2016	-		0.750	2.950	3.700	-
Ship Design Modifications	Various	Various : Various	0.000	-		-		-		-		-	1.500	1.500	-
		Subtotal	0.000	-		-		0.750		-		0.750	4.450	5.200	-

Support (\$ in Millions	Support (\$ in Millions)			FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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 Documention Support	C/FFP	CSC : DC	0.000	-		-		-		-		-	0.550	0.550	-
RFP and Specification Development	Various	Alion/CSC/ SPAWAR : DC, DC, Charleston, SC	0.000	-		-		0.250	Jan 2016	-		0.250	-	0.250	-
	-	Subtotal	0.000	-		-		0.250		-		0.250	0.550	0.800	-

	Prior Years	FY 2	2014	FY 2	2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		-		1.000	-	1.000	5.000	6.000	-

Remarks

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-4, RDT&E Schedule Pi	ofile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies	Project (Number/Name) 3377 I T-ATS (X) Ship Concept Development
Proj 3377	RQMTS APPROVED PHASE PI	### SOURCE SELECTION ### AVARD AT 1801 ### AVARD AT 1801 ### AVARD AT 1801 ### AVARD OPTION ### A	FY 2019 FY 2020

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
1319 / 4	PE 0603564N / Ship Prel Design &	3377 <i>I T-A</i>	TS (X) Ship Concept
	Feasibility Studies	Developme	ent

Schedule Details

	Sta	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Proj 3377					
T-ATS(X) REQUIREMENTS APPROVED	3	2015	3	2015	
T-ATS(X) MILESTONE A	1	2016	1	2016	
T-ATS(X) RELEASE OF PHASE I RFP	1	2016	1	2016	
T-ATS(X) PHASE I CONTRACT AWARD	2	2016	2	2016	
T-ATS(X) RELEASE OF PHASE II RFP	1	2017	1	2017	
T-ATS(X) SOURCE SELECTION	1	2017	3	2017	
T-ATS(X) MILESTONE B	3	2017	3	2017	
T-ATS(X) 1701 DD&C CONTRACT AWARD	4	2017	4	2017	
T-ATS(X) 1801 OPTION AWARD	1	2018	1	2018	
T-ATS(X) 1901 OPTION AWARD	1	2019	1	2019	
T-ATS(X) 1902 OPTION AWARD	1	2019	1	2019	
T-ATS(X) 2001 OPTION AWARD	1	2020	1	2020	

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2016 N	lavy							Date: Feb	ruary 2015	
Appropriation/Budget Activity 1319 / 4		, , , , ,					lumber/Name) ngressional Adds					
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
9999: Congressional Adds	24.967	11.065	-	-	-	-	-	-	-	-	-	36.032
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Navy

Beginning in FY13, Research and Development efforts for T-AO(X) (3417) is funded under RDTE,N PE 0603564N, PROJ C253 by a FY13 congressional add vice NDSF. FY14 RDTE,N efforts are funded under PROJ 3375C.

A. Mission Description and Budget Item Justification

T-AO(X) Design - Develop concept studies, ship design, and trade off studies in support of recapitalization of the existing T-AO 187 Fleet Oiler Class. The Navy's Combat Logistics Force (CLF) oilers supply fuel and dry cargo to Navy ships at sea. The T-AO(X) will operate as a shuttle ship from resupply ports to customer ships. Additionally, in conjunction with a T-AKE Dry Cargo/Ammunition Ship, they will accompany and stay on-station with a Carrier Strike Group (CSG) to provide fuel as required to customer ships.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015
Congressional Add: T-AO(X) - Cong	11.065	-
FY 2014 Accomplishments: Efforts funded under RDTE,N PE 0603564N, PROJ C253. Continued to provide engineering support for the T-AO(X) design process, validation of requirements and oversight of Industry Studies contracts. Supported initial development and staffing of Pre-B documents. Coordinated efforts with NAVSEA, MSC, PEO Ships, CNO, ASN RD&A, OSD and Fleet.		
FY 2015 Plans: Support the conduct of OSD Pre-B Decision Point. Issue DD&C RFP after Pre-B Decision Point. Support development and staffing of Milestone B (MS B) documents. Develop Developmental Testing Phase A (DT-A) Report in support of MS B. Support conduct of Systems Functional Review(SFR). Coordinate efforts with NAVSEA, MSC, PEO Ships, CNO, ASN RD&A, OSD and Fleet. FY 2015 efforts financed with FY 2014 carryover.		
Congressional Adds Subtotals	11.065	-

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

			FY 2016	FY 2016	FY 2016					Cost To	
<u>Line Item</u>	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
• 5025: T-AO(X) Recapitalization	-	-	674.190	-	674.190	-	576.760	579.246	590.647	8,617.000	11,037.843

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603564N / Ship Prel Design & Feasibility Studies	, ,	l umber/Name) ngressional Adds

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

			FY 2016	FY 2016	FY 2016					Cost To	
Line Item	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete 1	Total Cost

Remarks

D. Acquisition Strategy

The first Fleet Oiler will be awarded in FY16. Fleet oilers will comply with the Oil Pollution Act of 1990 (OPA-90) and International Marine Pollution Regulation (MARPOL) requirements.

E. Performance Metrics

None.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy

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

Project (Number/Name)
9999 / Congressional Adds

Product Developmen	ıt (\$ in M	illions)		FY 2	2014	FY 2	2015	FY 2 Ba	2016 ise		2016 CO	FY 2016 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 and Design	Various	SPAWAR, NSWC, NAVAIR, CSC & Alion : Charleston, Carderock & Pt Hueneme, Pax River & DC	5.150	5.345	Oct 2014	-		-		-		-	-	10.495	-
Engineering System Spec Development	C/CPFF	Alion : DC	0.800	-		-		-		-		-	-	0.800	-
Design Concepts/TOC/ Trade Off Studies	C/FFP	Various : Various	9.000	-		-		-		-		-	-	9.000	-
Expanded Industry Studies	C/FFP	Various : Various	4.000	-		-		-		-		-	-	4.000	-
		Subtotal	18.950	5.345		-		-		-		-	-	24.295	-

Support (\$ in Million	ns)			FY	2014	FY 2	2015		2016 ise	FY 2	2016 CO	FY 2016 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 Logistics, Risk Management, RFP Development	C/CPFF	Alion : DC	1.000	1.000	Sep 2014	-		-		-		-	-	2.000	-
MilestoneA/B & Pre-B Documentation Support	C/CPFF	Alion & CSC : DC	1.500	2.000	Sep 2014	-		-		-		-	-	3.500	-
		Subtotal	2.500	3.000		-		-		-		-	-	5.500	-

Test and Evaluation	(\$ in Milli	ons)		FY 2	2014	FY 2	2015		2016 ase		2016 CO	FY 2016 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	Total Cost	Target Value of Contract
Development Test & Evaluation	Various	Various : Various	0.550	0.250	Jul 2014	-		-		-		-	-	0.800	-
Operational Test & Evaluation	Various	Various : Various	0.750	0.350	Mar 2014	-		-		-		-	-	1.100	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy

Appropriation/Budget Activity

1319 / 4

R-1 Program Element (Number/Name)
PE 0603564N / Ship Prel Design & 9999 / Congressional Adds
Feasibility Studies

Test and Evaluation (\$ in Milli	ons)		FY	2014	FY 2	2015		2016 ise		2016 CO	FY 2016 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	Total Cost	Target Value of Contract
Live Fire Test & Evaluation	Various	Various : Various	0.650	0.220	Sep 2014	-		-		-		-	-	0.870	-
		Subtotal	1.950	0.820		-		-		-		-	-	2.770	-

Management Service	s (\$ in M	illions)		FY 2	2014	FY 2	2015	FY 2 Ba		FY 2	2016 CO	FY 2016 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
Source Selection Documentation	WR	NSWC : Carderock	0.200	0.900	Oct 2014	-		-		-		-	-	1.100	-
Program Management Support	C/CPFF	Alion & CSC : DC	1.367	1.000	Dec 2014	-		-		-		-	-	2.367	-
		Subtotal	1.567	1.900		-		-		-		-	-	3.467	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	24.967	11.065	-	-	-	-	-	36.032	-

Remarks

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-4, RDT&E Schedule Pro Appropriation/Budget Activity 1319 / 4									R-1 Po PE 06 Feasil	035	64N	1 <i>1</i> S	hip i	nt (I Pre	Nu i	mber/N esign &	lam	e)		Project 9999 / 0			Name) nal Adds	3	
Proj 9999	10	7 20 3Q	4Q	1Q	i	4Q	10		2016 3Q	4Q		2Q		10 1	10	FY 20		4Q	10	FY 20 ⁻	40	10	FY 20:		4Q
			GATE 3B ▲		DD&C RFP PRE-B																				
					MS	EVE	LO	>																	
									IEW SALS MS B	-															
									FY16						4	FY18 OPTION				FY19 OPTION			FY20 OPTION		
									-							•				_			- 		
2016PB - 0603564N - 9999																									

PE 0603564N: Ship Prel Design & Feasibility Studies Navy

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
, , ,	, ,	,	umber/Name) ngressional Adds

Schedule Details

	St	art	E	nd
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 9999				
T-AO(X) GATE 3B	4	2014	4	2014
T-AO(X) PRE-B REVIEW	2	2015	2	2015
RELEASE T-AO(X) DD&C RFP	2	2015	2	2015
T-AO(X) MS B DOCUMENTATION DEVELOPMENT	2	2015	2	2016
EVALUATE T-AO(X) DD&C PROPOSALS	1	2016	3	2016
T-AO(X) MILESTONE B	3	2016	3	2016
T-AO(X) 1601 DD&C AWARD	3	2016	3	2016
T-AO(X) 1801 DD&C OPTION	2	2018	2	2018
T-AO(X) 1901 DD&C OPTION	2	2019	2	2019
T-AO(X) 2001 DD&C OPTION	2	2020	2	2020