Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational

PE 0204313N I SHIP-TOWED ARRAY SURVEILLANCE SYSTEMS

Date: February 2018

Systems 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
Total Program Element	0.000	0.000	0.000	15.454	-	15.454	14.449	10.748	6.079	0.000	0.000	46.730
3261: TAGOS Design & Total Ship Integration	0.000	0.000	0.000	15.454	-	15.454	14.449	10.748	6.079	0.000	0.000	46.730

A. Mission Description and Budget Item Justification

This program was previously funded in FY 2018 under Program Element 0603564N (Ship Preliminary Design and Feasibility Studies) Project 3261 (TAGOS Design and Total Ship Integration). This program element continues efforts started under the previous program element and is not a new start.

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. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	15.454	-	15.454
Total Adjustments	0.000	0.000	15.454	-	15.454
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	_	-			
SBIR/STTR Transfer	_	-			
 Program Adjustments 	0.000	0.000	15.454	-	15.454

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0204313N I SHIP-TOWED ARRAY SURVEILLANCE	E SYSTEMS
<u>Change Summary Explanation</u> FY 2019 continues funding efforts previously financed under Program Design and Total Ship Integration).	Element 0603564N (Ship Preliminary Design and Feasibil	ity Studies) Project 3261 (TAGOS

PE 0204313N: SHIP-TOWED ARRAY SURVEILLANCE SYSTEMS Navy

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R-1 Line #224

Exhibit R-2A, RDT&E Project Ju	ustification:	PB 2019 N	lavy							Date: Febr	uary 2018	
Appropriation/Budget Activity 1319 / 7		PE 020431	am Elemen 13N / SHIP- ANCE SYS	TÒWED AF	lumber/Name) GOS Design & Total Ship							
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	0.000	15.454	-	15.454	14.449	10.748	6.079	0.000	0.000	46.730
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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 2019	FY 2019	FY 2019
	FY 2017	FY 2018	Base	oco	Total
Title: T-AGOS Design	0.000	0.000	15.454	0.000	15.454
Articles:	-	-	-	-	-
FY 2018 Plans:					
Funding for FY18 is in PE 0603564N (Ship Preliminary Design and Feasibility Studies) Project 3261 (TAGOS					
Design and Total Ship Integration). FY18 funding amount is 12.012 million.					
FY 2019 Base Plans:					
Award multiple contracts for industry studies. Begin the Navy led Preliminary Design efforts with industry					
participation. Continue development of SURTASS interface documentation. Conduct Gate 3 to support submission of the CDD for joint staffing. Develop model to conduct seakeeping and loads tests. Coordinate					
acquisition efforts with NAVSEA, MSC, PEO SHIPS, CNO, ASN RD&A, OSD, and Fleet.					
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 / 7	,	,	umber/Name) GOS Design & Total Ship
		Integration	,

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Funding increase from FY18 (\$12.012 million) is to begin the design efforts with industry and model development for testing.					
Accomplishments/Planned Programs Subtotals	0.000	0.000	15.454	0.000	15.454

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

			FY 2019	FY 2019	FY 2019					Cost To	
<u>Line Item</u>	FY 2017	FY 2018	Base	<u>000</u>	<u>Total</u>	FY 2020	FY 2021	FY 2022	FY 2023	Complete	Total Cost
• SCN/5030: TAGOS Surtass Ships	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 Navyled Preliminary/Contract Design (PD/CD) efforts. Complete Navy-led PD/CD efforts in FY21in 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

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy

R-1 Program Element (Number/Name)

Project (Number/Name)

1319 / 7

PE 0204313N I SHIP-TOWED ARRAY SURVEILLANCE SYSTEMS

3261 / TAGOS Design & Total Ship

Date: February 2018

Integration

Product Developmen	nt (\$ in Mi	llions)		FY 2	017	FY 2	018	FY 2 Ba	2019 ise	FY 2	2019 CO	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		0.000		4.338	Jan 2019	-		4.338	12.724	17.062	-
Industry Studies (shipyards)	C/FFP	Various : Various	0.000	0.000		0.000		4.000	May 2019	-		4.000	3.000	7.000	-
Model Testing	Various	Various : Various	0.000	0.000		0.000		2.124	Jan 2019	-		2.124	1.000	3.124	-
SURTASS Integration	Various	Various : Various	0.000	0.000		0.000		0.800	Jan 2019	-		0.800	2.800	3.600	-
		Subtotal	0.000	0.000		0.000		11.262		-		11.262	19.524	30.786	N/A

Remarks

FY18 funding is in PE 0603564N P/U 3261.

Appropriation/Budget Activity

Support (\$ in Million	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 Doc/RFP Development	Various	Various : Various	0.000	0.000		0.000		1.240	Jan 2019	-		1.240	3.838	5.078	-
Specification & TDP Development	Various	Various : Various	0.000	0.000		0.000		1.446	Jan 2019	-		1.446	3.160	4.606	-
Systems Integration (C4I/ Safety/Risk)	Various	Various : Various	0.000	0.000		0.000		0.930	Jan 2019	-		0.930	2.804	3.734	-
Source Selection Support	Various	Various : Various	0.000	0.000		0.000		0.163	Feb 2019	-		0.163	0.300	0.463	-
		Subtotal	0.000	0.000		0.000		3.779		-		3.779	10.102	13.881	N/A

Remarks

FY18 funding is in PE 0603564N P/U 3261.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy

R-1 Program Element (Number/Name)

Project (Number/Name)

1319 / 7

PE 0204313N I SHIP-TOWED ARRAY SURVEILLANCE SYSTEMS

3261 / TAGOS Design & Total Ship

Date: February 2018

Integration

Test and Evaluation	(\$ in Milli	ons)		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		0.000		0.413	Jan 2019	-		0.413	1.650	2.063	-
		Subtotal	0.000	0.000		0.000		0.413		-		0.413	1.650	2.063	N/A

Remarks

FY18 funding is in PE 0603564N P/U 3261.

Appropriation/Budget Activity

	Prior Years	FY 2	2017	FY 2	2018	FY 2 Ba	019 se	FY 2	 FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		15.454		-	15.454	31.276	46.730	N/A

Remarks

PE 0204313N: SHIP-TOWED ARRAY SURVEILLANCE SYSTEMS
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					7	Г-А	GC	S	De	sig	n é	ŁΤ	ota	l S	hip	In	teg	ŗa	tioı	n								
Fiscal Year	l Year FY 2017			FY 2018			FY 201				FY 2020				FY 2021			FY 2022			FY 2023							
Quarter Program Milestones	Q1	Q2 AoA		Q4 \	L	Q2 ate 2	Gate	2	\Diamond	Q2 Gate		Q4	Q1	Q2	Q3	Q4	Q1	Q2	♦	Q4 ate /5	Q1 ^	Q2 MS		Q4	Q1	Q2	Q3	C
Acquisition Phases							Kec	nve	ne Z		Ç			_	udies Ontra	ct Aw	ard		Δ	RFI	s/s	\	220	01 Aw	ard			
Procurement Schedule						⊏	Pre-Pr			Pre	lim. (Design	, I	Cont	tract (Design	n						Det	ail De	DD&	c 		
Test & Evaluation																												

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy					
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204313N I SHIP-TOWED ARRAY SURVEILLANCE SYSTEMS	- ,	umber/Name) GOS Design & Total Ship		

Schedule Details

	St	art	End			
Events by Sub Project	Quarter	Year	Quarter	Year		
Proj 3261						
Gate 3	1	2019	1	2019		
Milestone B	1	2022	1	2022		
DD&C Award	2	2022	2	2022		