Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy	Date: May 2021
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*

COST ($ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	1,304.239	112.555	46.750	127.756	-	127.756	-	-	-	-	-	-
3337: *Offensive Anti-Surface Warfare (OASuW) Weapon*	1,284.932	64.287	46.750	35.930	-	35.930	-	-	-	-	-	-
3343: *Offensive Anti-Surface Warfare (OASuW) Weapon Increment II*	0.000	0.000	0.000	56.964	-	56.964	-	-	-	-	-	-
3466: *JASSM*	0.000	0.000	0.000	34.862	-	34.862	-	-	-	-	-	-
9999: *Congressional Adds*	19.307	48.268	0.000	0.000	-	0.000	-	-	-	-	-	-

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): P449

A. Mission Description and Budget Item Justification

Offensive Anti-Surface Warfare (OASuW) is an offensive weapon system that can be air, surface, and subsurface launched in the maritime battle space environment. OASuW is a vital component of the Joint Force Anti-Surface Warfare capability and incorporate new and emergent technologies to support an increased offensive strike capability utilizing multiple weapons. Due to emerging threats, the fleet issued an Urgent Operational Needs Statement (UONS) that identified a capability gap for a long-range anti-ship missile to be filled by 2018. Directly supporting this UONS and significantly reducing Joint Force warfighting risks, the U.S. Navy initiated OASuW Increment 1 (OASuW-1), which leverages the Defense Advanced Research Projects Agency (DARPA)/Office of Naval Research Long Range Anti-Ship Missile (LRASM) demonstration program to deliver an Early Operational Capability (EOC) in the required timeframe. LRASM fills the most urgent air-launched capability gap to complement existing ASuW weapon systems and positions the Department of Defense to address evolving surface warfare threats. LRASM is integral to realizing the National Defense Strategy of combat-credible military forces to deter war, protect the security of our nation and to enable the Joint Force to win should deterrence fail. The development and acquisition of LRASM has been structured to be fielded at a pace relevant to maintain overmatch against long-term strategic competition. Specifically, LRASM directly contributes to building a more lethal force and is a critical enabler for joint lethality in contested environments; deterring adversaries from aggression; ensuring common domains remain open and maintaining favorable regional balances of power.

The OASuW program is part of the Navy's Integrated Fire Control (IFC) approach to address advanced threat capabilities in the Anti-Access/Area-Denial (A2AD) environment. IFC solutions enable individual system capabilities to be leveraged across an effects chain, placing the full spectrum of tactical capability in the hands of the warfighter. IFC solutions that push engagement distances beyond the launch platform's radar horizon and allows the U.S. Navy to operate in, and control, contested battle space in littoral waters and A2/AD environments are increasingly critical as more and more scenarios require compressed and coordinated fire control timelines. OASuW strategy pursues capability across multiple weapon systems to enhance warfighting capabilities.

Budget Item Justification: This program is funded under ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES because it includes all efforts necessary to evaluate integrated technologies, representative models or prototype systems in a high fidelity and realistic operating environment.

Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy	Date: May 2021
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*

B. Program Change Summary ($ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	115.419	35.750	29.840	-	29.840
Current President's Budget	112.555	46.750	127.756	-	127.756
Total Adjustments	-2.864	11.000	97.916	-	97.916
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	11.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.864	0.000			
• Program Adjustments	0.000	0.000	104.934	-	104.934
• Rate/Misc Adjustments	0.000	0.000	-7.018	-	-7.018

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

	FY 2020	FY 2021
Project: 9999: *Congressional Adds*		
Congressional Add: *LRASM 1.1 capability improvements*	48.268	0.000
Congressional Add Subtotals for Project: 9999	48.268	0.000
Congressional Add Totals for all Projects	48.268	0.000

Change Summary Explanation

FY 2022 has changed since the prior President's Budget submission due to the following specific adjustments:

OASuW Increment 1 (PU 3337) increased by $8.475M for LRASM 1.1 capability improvement efforts as the program transitions to final testing and delivery of the LRASM 1.1 EOC to the Fleet. This increase was offset by a decrease of $2.385M for miscellaneous/rate adjustments.

OASuW Increment 2 (PU 3343) increased by $61.459M to begin development efforts to implement a high speed, long range, air launched weapon system providing Strike and ASuW capabilities in the 2030 timeframe. The program is part of the Navy's Long Range Fires investment approach to meet objectives of the National Defense Strategy. This increase was offset by a decrease of $4.495M for miscellaneous/rate adjustments.

JASSM-ER (PU 3466) increased by $35.0M to begin Navy specific development and integration efforts to incorporate the JASSM-ER derived capability into the Naval arsenal. This increase was offset by a decrease of $0.138M for miscellaneous/rate adjustments.

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3337 / *Offensive Anti-Surface Warfare (OASuW) Weapon*	

COST ($ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
3337: *Offensive Anti-Surface Warfare (OASuW) Weapon*	1,284.932	64.287	46.750	35.930	-	35.930	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: P449

A. Mission Description and Budget Item Justification

Offensive Anti-Surface Warfare (OASuW) is an offensive weapon system that can be air, surface, and subsurface launched in the maritime battle space environment. OASuW is a vital component of the Joint Force Anti-Surface Warfare capability and incorporate new and emergent technologies to support an increased offensive strike capability. Due to emerging threats, the fleet issued an Urgent Operational Needs Statement (UONS) that identified a capability gap for a long-range anti-ship missile to be filled by 2018. Directly supporting this UONS and significantly reducing Joint Force warfighting risks, the U.S. Navy initiated OASuW Increment 1 (OASuW-1), which leverages the Defense Advanced Research Projects Agency(DARPA)/Office of Naval Research Long Range Anti-Ship Missile (LRASM) demonstration program to deliver an Early Operational Capability (EOC) in the required timeframe. LRASM fills the most urgent air-launched capability gap to complement existing ASuW weapon systems and positions the Department of Defense to address evolving surface warfare threats. LRASM is integral to realizing the National Defense Strategy of combat-credible military forces to deter war, protect the security of our nation and to enable the Joint Force to win should deterrence fail. The development and acquisition of LRASM has been structured to be fielded at a pace relevant to maintain overmatch against long-term strategic competition. Specifically, LRASM directly contributes to building a more lethal force and is a critical enabler for joint lethality in contested environments; deterring adversaries from aggression; ensuring common domains remain open and maintaining favorable regional balances of power.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: OASuW Development Program	64.287	46.750	35.930	0.000	35.930
Articles:	-	-	-	-	-
FY 2021 Plans: Continued development, integration and test for the OASUW Increment 1 LRASM v1.1 capability improvements to ensure tactical dominance for the warfighter over a longer period of time by providing sanctuary employment against capital warships.					
FY 2022 Base Plans: LRASM 1.1 capability improvements realizes a ramp down in FY 2022 as the program transitions to final operational testing prior to delivery of the LRASM 1.1 EOC to the Fleet.					
FY 2022 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3337 / *Offensive Anti-Surface Warfare (OASuW) Weapon*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
N/A ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Decrease of $10.82M from FY 2021 to FY 2022 in PU 3337 for ramp down and completion of LRASM 1.1 capability improvement.					
Accomplishments/Planned Programs Subtotals	64.287	46.750	35.930	0.000	35.930

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• WPN/2291: *LRASM*	72.544	134.065	161.212	-	161.212	-	-	-	-	-	-

Remarks

U.S. Navy WP,N funding supports the following quantities:

FY17 - 14 (Lot 1)
FY18 - 34 (Lot 2)
FY19 - 34 (Lot 3) 1 unit that was priced at and part of the Lot 2 procurement)
FY20 - 17 (Lot 4)
FY21 - 43 (Lot 5)
FY22 - 48 (Lot 6)
FY23 - 50 (Lot 7)
FY24 - 48 (Lot 8)
FY25 - 43 (Lot 9)
FY26 - 43 (Lot 10)

U.S. Air Force MP,AF funding supports the following quantities:

FY17 - 19 (Lot 1)
FY18 - 16 (1 unit is priced at and part of FY 2017 Lot 1 procurement to achieve 20 total Air Force units in Lot 1; 15 units are with the FY 2018 Lot 2 procurement)
FY19 - 15 (Lot 3)
FY20 - 0 (Lot 4)
FY21 - 5 (Lot 5)
FY22 - 0 (Lot 6)

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3337 / *Offensive Anti-Surface Warfare (OASuW) Weapon*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
FY23 - 29 (Lot 7)											
FY24 - 23 (Lot 8)											
FY25 - 21 (Lot 9)											
FY26 - 24 (Lot 10)											

D. Acquisition Strategy

OASuW-1 is using an accelerated acquisition approach, with streamlined governance to transition the DARPA/ONR-demonstrated Long Range Anti-Ship Missile (LRASM) for use as an air-launched weapon from USAF and USN platforms. LRASM is integral to realizing the National Defense Strategy of combat-credible military forces to deter war, protect the security of our nation and to enable the Joint Force to win should deterrence fail. LRASM supports greater performance of the acquisition system and is demonstrating the delivery of performance at the speed of relevance; organizational structure that supports innovation with a rapid approach that dramatically decreases the timeline from development to fielding. The program is leveraging DoDI 5000.02i Model 4 to structure the acquisition strategy, which includes a highly integrated and concurrent transition design, integration, and developmental / operational test program which successfully met the Early Operation Capability (EOC) fielding threshold required by an Urgent Operational Need Statement (UONS) issued by the fleet. The program is structured in three phases: Technology Maturation, Integration and Test, and Procurement. To manage the accelerated timeline and resulting concurrency, the program uses a structured Knowledge Point review process that support decisions regarding significant program events such as transition from design to integration phase and contract awards. These reviews also provide senior DoD leadership the opportunity to provide focused support and active management of technical and acquisition risk and are chaired by the Service Acquisition Executive, ASN(RDA) (delegated MDA), and the Deputy Director of DARPA. The knowledge points are similar to acquisition milestone reviews, but occur more frequently. Knowledge Point 7 supported Lot 3 procurement and Knowledge Point 8 supported USN EOC decision. The program met the statutory requirements associated with Milestone B at Knowledge Point 3. In addition to the Knowledge Point reviews, the program also conducts Executive Steering Board reviews (also chaired by the MDA). Supporting these reviews, the associated engineering approach is designed to mitigate resulting risk by implementing a rolling-wave engineering progression based on the NAVAIR Systems Engineering Technical Review (SETR) process to enable detailed planning and decisions as the system matures. The LRASM 1.1 capability improvements program, which initiated in FY 2019, follows in the same manner with continued reviews and test events to achieve incorporation of those improvements on future production units.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3337 / *Offensive Anti-Surface Warfare (OASuW) Weapon*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/CPIF	Lockheed Martin Missile and Fire Control : Orlando, FL	928.785	38.294	Apr 2020	22.823	Oct 2020	20.583	Oct 2021	-		20.583	-	-	-
Product Development	C/CPFF	Boeing : St. Louis, MO	61.503	0.000		0.750	Mar 2021	0.000		-		0.000	-	-	-
		Subtotal	990.288	38.294		23.573		20.583		-		20.583	-	-	N/A

Remarks

Lockheed Martin (LM) costs include all integration and test efforts for LRASM 1.1 capability improvements development by LM and associated sub-contractors. FY 2022 includes continued product development for LRASM 1.1 integration and testing and receipt of previously ordered material to support those activities.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWC AD : Patuxent River,MD	9.990	0.762	Nov 2019	2.076	Nov 2020	0.400	Nov 2021	-		0.400	-	-	-
Government Support	WR	NAWC WD : China Lake, CA	59.357	4.859	Nov 2019	5.013	Nov 2020	1.800	Nov 2021	-		1.800	-	-	-
Development Support	WR	NSMA : Washington, DC	29.733	3.025	Nov 2019	5.480	Nov 2020	1.760	Nov 2021	-		1.760	-	-	-
Contractor Support	C/CPFF	JHU/APL : Laurel, MD	12.736	0.000		0.000		0.000		-		0.000	-	-	-
Contractor Support	C/FFP	Gryphon - Schafer Corporation : Arlington, VA	23.454	0.706	Jun 2020	2.012	May 2021	1.256	May 2022	-		1.256	-	-	-
Mission Planning Support	C/CPFF	Tapestry : San Diego, CA	10.957	0.999	Feb 2020	0.300	Feb 2021	0.300	Feb 2022	-		0.300	-	-	-
Contractor Support	C/FFP	SAIC : Patuxent River, MD	1.881	0.805	Jun 2020	0.300	Jun 2021	0.350	Jun 2022	-		0.350	-	-	-
Contractor Support	Various	Various : Various	11.844	1.060	Oct 2019	2.115	Nov 2020	0.700	Nov 2021	-		0.700	-	-	-
Government Support	Various	Various : Various	6.793	0.383	Nov 2019	0.111	Nov 2020	0.075	Nov 2021	-		0.075	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3337 / *Offensive Anti-Surface Warfare (OASuW) Weapon*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Yr Supp no longer funded in the FYDP	Various	Various : Various	2.800	0.000		0.000		0.000		-		0.000	-	-	-
		Subtotal	169.545	12.599		17.407		6.641		-		6.641	-	-	N/A

Remarks

Support costs consist of support from Government offices and Contractor Support experts associated with engineering, threat analysis, CONOPs, and Training and Tactical assessments for continued development of the LRASM 1.1 capability improvements.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	NAWC WD : China Lake, CA	61.450	2.343	Nov 2019	3.921	Nov 2020	6.064	Nov 2021	-		6.064	-	-	-
Development Support	WR	NAWC AD : Patuxent River, MD	33.799	0.381	Nov 2019	0.297	Nov 2020	1.000	Nov 2021	-		1.000	-	-	-
Development Support	WR	COTF : Norfolk, VA	0.397	0.130	Sep 2020	0.007	Sep 2021	0.150	Sep 2022	-		0.150	-	-	-
Development Support	MIPR	USAF : Various	5.900	0.000		0.000		0.000		-		0.000	-	-	-
Contractor Eng Support	C/CPFF	NAVSUP : Port Hueneme, CA	0.075	0.075	Apr 2020	0.075	Sep 2021	0.075	Sep 2022	-		0.075	-	-	-
Prior Yr T&E no longer funded in the FYDP	Various	Various : Various	4.494	0.000		0.000		0.000		-		0.000	-	-	-
		Subtotal	106.115	2.929		4.300		7.289		-		7.289	-	-	N/A

Remarks

Test and Evaluation costs support flight testing, system qualifications, range time, and target costs needed for LRASM 1.1 capability improvements. FY 2022 supports the integrated test program for development test for LRASM 1.1.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3337 / *Offensive Anti-Surface Warfare (OASuW) Weapon*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWC AD : Patuxent River, MD	10.527	1.606	Nov 2019	1.329	Nov 2020	1.000	Nov 2021	-		1.000	-	-	-
Government Support	WR	NAWC WD : China Lake, CA	5.347	8.800	Nov 2019	0.081	Nov 2020	0.287	Nov 2021	-		0.287	-	-	-
Project Management Support	C/CPFF	NAWC AD : Patuxent River, MD	1.600	0.000		0.000		0.000		-		0.000	-	-	-
Travel	Various	NAWC AD : Patuxent River, MD	1.510	0.059	Oct 2019	0.060	Oct 2020	0.130	Oct 2021	-		0.130	-	-	-
		Subtotal	18.984	10.465		1.470		1.417		-		1.417	-	-	N/A

Remarks

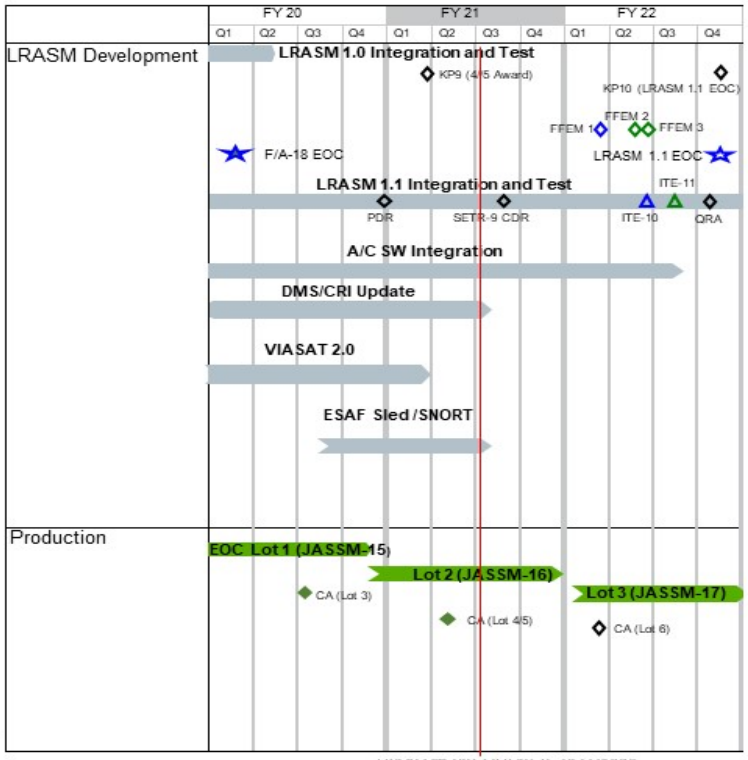
Management Services costs consist of Non-Headquarters Program Office Management team (Government labor and Contractor support services) required for the management of the program. Continues management services for the LRASM 1.1 capability improvements.

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,284.932	64.287		46.750		35.930		-		35.930	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3337 / *Offensive Anti-Surface Warfare (OASuW) Weapon*

OASuW Inc. 1 / LRASM PB22 Program Schedule



NAVAIR

Exhibit R-4A, **RDT&E Schedule Details:** PB 2022 Navy		**Date:** May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3337 / *Offensive Anti-Surface Warfare (OASuW) Weapon*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Offensive Anti-Surface Weapon (OASuW) Page 1				
Development: Early Operational Capability (EOC) Navy	1	2020	1	2020
Development: Knowledge Point 9 (LRASM v1.1)	1	2021	1	2021
Development: Knowledge Point 10 (LRASM v1.1)	4	2022	4	2022
Development: Early Operational Capability (LRASM v1.1) Navy	4	2022	4	2022
Development: LRASM 1.0 Integration & Test	1	2020	2	2020
Development: LRASM 1.1 Integration & Test	1	2020	4	2022
Development: LRASM 1.1 Integration & Test PDR	4	2020	4	2020
Development: LRASM 1.1 Integration & Test CDR (SETR-9)	3	2021	3	2021
Development: A/C Software Integration	1	2020	3	2022
Development: Diminishing Manufacturing Sources / Cost Reduction Initiative (Radio Frequency Sensor)	1	2020	3	2021
Development: VIASAT 2.0	1	2020	1	2021
Development: ESAF Sled / SNORT (Fuze)	3	2020	3	2021
Development: Free Flight Evaluation Missile (FFEM)-1	1	2022	1	2022
Development: FFEM-2	2	2022	2	2022
Development: FFEM-3	2	2022	2	2022
Development: Integrated Test Event (ITE)-10	2	2022	2	2022
Development: ITE-11	3	2022	3	2022
Development: Quick Reaction Assessment Testing (Navy)	4	2022	4	2022
Production: FY19 Production Buy - 48 units (15 AF, 33 NAVY) (Lot 3)	3	2020	3	2020
Production: FY20 Production Buy - 17 units (17 NAVY) (Lot 4)	2	2021	2	2021

Exhibit R-4A, **RDT&E Schedule Details:** PB 2022 Navy		**Date:** May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3337 / *Offensive Anti-Surface Warfare (OASuW) Weapon*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Production: FY21 Production Buy - 49 units (6 AF, 43 NAVY) (Lot 5)	2	2021	2	2021
Production: FY22 Production Buy - 48 units (48 NAVY) (Lot 6)	1	2022	1	2022
Production: FY17 Deliveries - 34 units	1	2020	4	2020
Production: FY18 Deliveries - 50 units	4	2020	4	2021
Production: FY19 Deliveries - 48 units	1	2022	4	2022

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3343 / *Offensive Anti-Surface Warfare (OASuW) Weapon Increment II*	

COST ($ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
3343: *Offensive Anti-Surface Warfare (OASuW) Weapon Increment II*	0.000	0.000	0.000	56.964	-	56.964	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Department of the Navy is developing OASuW Inc 2 (PU 3343) to address weapon system requirements based on the recently completed Offensive Anti-Surface Warfare (OASuW) Analysis of Alternatives. OASuW-2 will be a high speed, long range, air launched weapon system providing Strike and ASuW capabilities. The program is part of the Navy's Long Range Fires investment approach to meet objectives of the National Defense Strategy. As a key component of this strategy, OASuW-2 will address advanced threats from engagement distances allowing the Navy to operate in, and control, contested battle space in littoral waters and A2/AD environments.

The initial year of funding will be utilized for technical maturation of component level investments, stand-up security infrastructure and kick-off the OASuW Inc 2 competition that will result in an Engineering, Manufacturing and Development (EMD) contract 2QFY23. Significant activity in the science and technology (S&T) and rapid prototyping arenas is setting the stage for aggressive schedule execution in this area, with all four of the major defense contractor missile manufacturers actively participating in one or more of the programs. These projects include the Hypersonic Air Breathing Weapon Concept (HAWC) from the Defense Advanced Research Projects Agency (DARPA), the Supersonic Propulsion Enabled Advanced Ramjet (SPEAR) Rapid Prototyping project under the Office of Secretary of Defense Research & Engineering, and the Hypersonics Innovative Naval Prototype under the Office of Naval Research. The Navy will also explore and consider new concepts proposed by industry.
FY 2022 New Start.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: OASuW Increment II Development Program	0.000	0.000	56.964	0.000	56.964
Articles:	-	-	-	-	-
FY 2021 Plans: N/A					
FY 2022 Base Plans: The Navy will initiate a Technology Development program leveraging the results of the Analysis of Alternatives (AoA) and Science & Technology prototyping efforts and technology demonstrations. The program will make					

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3343 / *Offensive Anti-Surface Warfare (OASuW) Weapon Increment II*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
targeted investments in maturing subsystem technologies, as well as component or full-scale prototyping activities, for application in the OASuW mission set and associated environment. ***FY 2022 OCO Plans:*** N/A ***FY 2021 to FY 2022 Increase/Decrease Statement:*** This budget reflects initiation of OASuW Increment II efforts in FY 2022. Funding supports technology maturation, security infrastructure, software and digital environment development, and risk reduction efforts that will build towards future award of the prime EMD development contract.					
Accomplishments/Planned Programs Subtotals	0.000	0.000	56.964	0.000	56.964

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

OASuW-2 will leverage significant Science & Technology investments in critical technologies and requirements definition to implement an acquisition strategy that will deliver an affordable capability to the warfighter. The acquisition strategy will define the program in terms of cost and performance parameters that will trace to mission objectives based on a robust understanding of the capability and technical trade space.

The Government expects the acquisition to follow a competitive, phased approach with initial activities focusing on system concepts, model-based systems engineering, preliminary design and technology development and technology integration efforts. Successful offerors may have the opportunity to continue with detailed design and production activities as part of future contracting efforts.

The effort involves the use of Digital Engineering (DE) and Model-Based Systems Engineering (MBSE) practices for requirements, design, trade studies, and analyses; as well as the use of DE/MBSE to accomplish technical planning for qualification, component/subsystem testing, manufacturing, and sustainment of the system under representative operational conditions in future phases of the program.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3343 / *Offensive Anti-Surface Warfare (OASuW) Weapon Increment II*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/CPIF	NSMA : Washington, DC	0.000	0.000		0.000		19.708	Jan 2022	-		19.708	-	-	-
Product Development - Propulsion	TBD	Various : Various	0.000	0.000		0.000		4.000	Jan 2022	-		4.000	-	-	-
Product Development - Weapon Data Link (WDL)	C/IDIQ	TBD : TBD	0.000	0.000		0.000		25.000	Jan 2022	-		25.000	-	-	-
		Subtotal	0.000	0.000		0.000		48.708		-		48.708	-	-	N/A

Remarks

Budget reflects an initial technology maturation and risk reduction efforts for initiation of OASuW Increment II development. FY 2022 activities focus on three areas:
-Software development, modeling and simulation with adaptation of the OASuW AoA digital environment to enable capabilities based acquisition and engineering in a construct built for program execution.
-Maturation of propulsion technology. "Various" is listed to reflect that the Navy will leverage known S&T investment as well as explore new industry proposals.
-Maturation of Weapon Data Link technology. "TBD" is listed to reflect the Navy is evaluating competitive contracting between multiple vendors for the FY 2022 effort.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.675	Nov 2021	-		0.675	-	-	-
Government Support	WR	NAWCWD : China Lake, CA	0.000	0.000		0.000		1.280	Nov 2021	-		1.280	-	-	-
Development Support	C/CPFF	NSMA : Washington, DC	0.000	0.000		0.000		5.000	Jan 2022	-		5.000	-	-	-
Contractor Support	Various	Various : Various	0.000	0.000		0.000		0.220	Jan 2022	-		0.220	-	-	-
		Subtotal	0.000	0.000		0.000		7.175		-		7.175	-	-	N/A

Remarks

Support costs consist of support from Government offices and contractor support experts associated with the engineering, threat analysis, CONOPs, training and tactical assessments for OASuW Increment II.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3343 / *Offensive Anti-Surface Warfare (OASuW) Weapon Increment II*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.175	Nov 2021	-		0.175	-	-	-
Government Support	WR	NAWCWD : China Lake, CA	0.000	0.000		0.000		0.175	Nov 2021	-		0.175	-	-	-
		Subtotal	0.000	0.000		0.000		0.350		-		0.350	-	-	N/A

Remarks

Test and Evaluation costs consist of support from Government offices associated with establishing test and evaluation requirements for OASuW Increment II.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.440	Nov 2021	-		0.440	-	-	-
Government Support	WR	NAWCWD : China Lake, CA	0.000	0.000		0.000		0.261	Nov 2021	-		0.261	-	-	-
Travel	Various	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.030	Nov 2021	-		0.030	-	-	-
		Subtotal	0.000	0.000		0.000		0.731		-		0.731	-	-	N/A

Remarks

Management services consists of Non-Headquarters Program Office management teams required for the management of the program.

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		56.964		-		56.964	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3343 / *Offensive Anti-Surface Warfare (OASuW) Weapon Increment II*

PB22 OASuW Inc. 2 Program Schedule

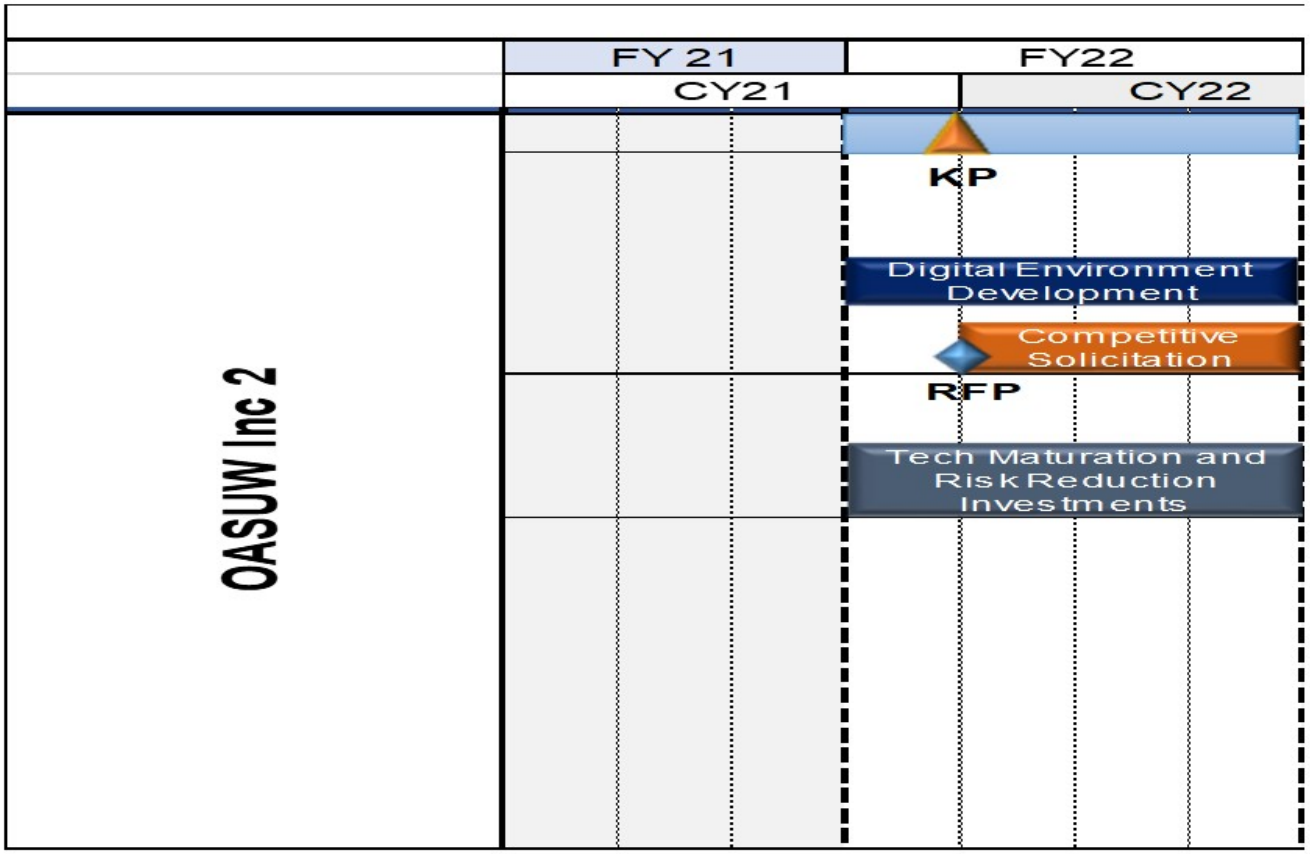


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Exhibit R-4A, **RDT&E Schedule Details:** PB 2022 Navy		**Date:** May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3343 / *Offensive Anti-Surface Warfare (OASuW) Weapon Increment II*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3343				
Product Development: Digital Environment	1	2022	4	2022
Acquisitions Milestones: KP	1	2022	1	2022
Program Reviews: Technology Maturation / Risk Reduction	1	2022	4	2022

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3466 / *JASSM*	

COST ($ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
3466: *JASSM*	0.000	0.000	0.000	34.862	-	34.862	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Joint Air-to-Surface Standoff Missile (JASSM) (PU 3466) is established to incorporate a JASSM Extended Range (JASSM-ER/AGM-158) derived capability into the Navy arsenal in order to provide near term, cost effective capacity to Navy's long range strike capability while enhancing the OASuW mission. The Navy will integrate a JASSM-ER derived weapon onto F/A-18 aircraft and partner with USAF to further the capabilities of the AGM-158 product line. This funding line resources requirements for Navy strike mission integration and employment by upgrading the existing AGM-158 product to respond to rapidly changing threats. Navy JASSM development efforts will also involve development and integration of a radio subsystem to enable dual mission capability and enhance operational flexibility, optimizing carrier magazine capacity to complement OASuW warfighting capability.
FY 2022 New Start

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: JASSM Development Program	0.000	0.000	34.862	0.000	34.862
Articles:	-	-	-	-	-
FY 2021 Plans: N/A					
FY 2022 Base Plans: Begin development of JASSM-ER derived capability and radio integration on F/A-18. Develop software for strike mission planning, Universal Armament Interface (UAI) and missile Operational Flight Plan (OFP). Begin integration, ground and flight testing for shipboard storage and operations.					
FY 2022 OCO Plans: N/A					
FY 2021 to FY 2022 Increase/Decrease Statement: Increase from FY 2021 to FY 2022 is due to initiation of development and integration of JASSM-ER derived capability and radio integration for the Navy; new PU 3466 under PE 0604786N begins in FY 2022.					
Accomplishments/Planned Programs Subtotals	0.000	0.000	34.862	0.000	34.862

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3466 / *JASSM*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• WPN/2236: *JASSM*	0.000	0.000	37.039	-	37.039	-	-	-	-	-	-

Remarks

Joint Air-to-Surface Standoff Missile (JASSM) is a new USN BLI in FY 2022 (BLI 2236).

D. Acquisition Strategy

The USAF owned JASSM Acquisition Strategy was amended and approved on September 8, 2017 for the development of the AGM-158B-2/D. This amendment enables the JASSM program to introduce upgrades which ensure its viability as the threat environment evolves.

The Navy is leveraging USAF and USN investment in the AGM-158 family of weapons to provide a strike capability and enable further growth in the OASuW mission to optimize schedule, cost and performance tradeoffs. Utilization of the JASSM-ER/AGM-158 baseline enables rapid fielding of new capability without extensive non-recurring engineering and test efforts that would be required with a new weapon program. Commonality across the AGM-158 family enables the USN and USAF to continue to capitalize on joint development and production efficiencies to minimize recurring unit costs and improve operational flexibility.

Navy funded software development will leverage the USAF investment to convert JASSM-ER software to a C++ software baseline, similar to LRASM, and focus on combining JASSM-ER strike capability and LRASM OASuW capability into a merged Navy JASSM baseline. Future effort will expand both Navy strike and OASuW capabilities within Navy JASSM.

The Navy will produce an addendum to the AGM-158 acquisition strategy to address Navy unique integration requirements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3466 / *JASSM*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/CPFF	Lockheed Martin Missile and Fire Control : Orlando, FL	0.000	0.000		0.000		17.800	Jan 2022	-		17.800	-	-	-
		Subtotal	0.000	0.000		0.000		17.800		-		17.800	-	-	N/A

Remarks

Prime contractor product development and radio integration of JASSM-ER derived capability for the Navy. Funds software development and integration for mission planning, UAI and OFP. Integration testing, test support and test article procurement.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWC AD : Patuxent River, MD	0.000	0.000		0.000		2.500	Nov 2021	-		2.500	-	-	-
Government Support	WR	NAWC WD : China Lake, CA	0.000	0.000		0.000		5.000	Nov 2021	-		5.000	-	-	-
Contractor Support	C/CPFF	NAWC AD : Patuxent River, MD	0.000	0.000		0.000		1.000	Mar 2022	-		1.000	-	-	-
Contractor Support	C/CPFF	NSMA : Washington, DC	0.000	0.000		0.000		1.000	Mar 2022	-		1.000	-	-	-
		Subtotal	0.000	0.000		0.000		9.500		-		9.500	-	-	N/A

Remarks

Support costs consist of support from government office and contractor support experts associated with engineering, software development and integration, threat analysis, CONOPs, and training and tactical assessments.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3466 / *JASSM*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWC AD : Patuxent River, MD	0.000	0.000		0.000		1.500	Nov 2021	-		1.500	-	-	-
Government Support	WR	NAWC WD : China Lake, CA	0.000	0.000		0.000		4.862	Nov 2021	-		4.862	-	-	-
		Subtotal	0.000	0.000		0.000		6.362		-		6.362	-	-	N/A

Remarks

Test and Evaluation costs support test planning, flight testing, system qualifications, range time and target costs. Develops and executes the Navy JASSM-ER integrated test program.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWC AD : Patuxent River, MD	0.000	0.000		0.000		0.700	Nov 2021	-		0.700	-	-	-
Government Support	WR	NAWC WD : China Lake, CA	0.000	0.000		0.000		0.500	Nov 2021	-		0.500	-	-	-
		Subtotal	0.000	0.000		0.000		1.200		-		1.200	-	-	N/A

Remarks

Management services cost consist of non-headquarters program office management team (government labor and contractor support services) required for the management of the program.

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		34.862		-		34.862	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3466 / *JASSM*

OASuW / JASSM
PB22 Program Schedule

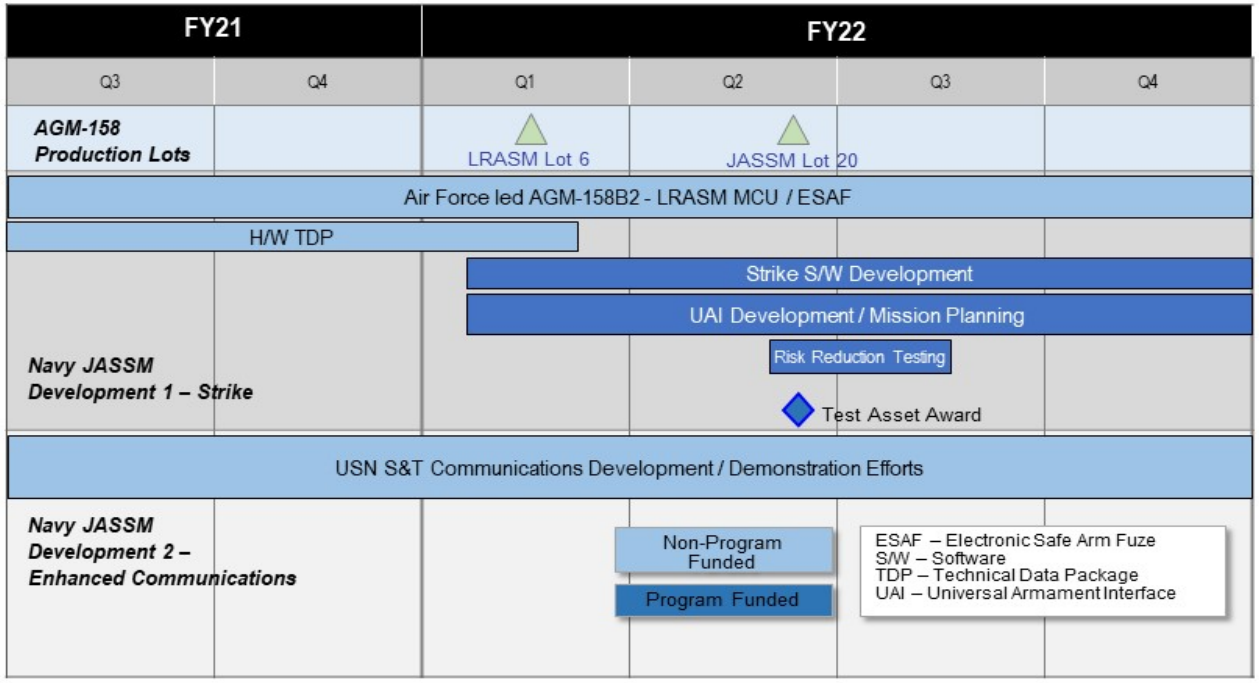

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2022 Navy		**Date:** May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 3466 / *JASSM*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3466				
Navy JASSM Development 1 - Strike: Strike S/W Development	1	2022	4	2022
Navy JASSM Development 1 - Strike: Universal Armament Interface (UAI) Development / Mission Planning	1	2022	4	2022
Navy JASSM Development 1 - Strike: JASSM Test Asset	2	2022	2	2022
Production: FY2022 Contract Award	2	2022	2	2022

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy			Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface War fare Weapon Dev*	**Project (Number/Name)** 9999 / *Congressional Adds*	

COST ($ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
9999: *Congressional Adds*	19.307	48.268	0.000	0.000	-	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Offensive Anti-Surface Warfare (OASuW) is an offensive weapon system that can be air, surface, and subsurface launched in the maritime battle space environment. OASuW is a vital component of the Joint Force Anti-Surface Warfare capability and incorporate new and emergent technologies to support an increased offensive strike capability. Due to emerging threats, the fleet issued an Urgent Operational Needs Statement (UONS) that identified a capability gap for a long-range anti-ship missile to be filled by 2018. Directly supporting this UONS and significantly reducing Joint Force warfighting risks, the U.S. Navy initiated OASuW Increment 1 (OASuW-1), which leverages the Defense Advanced Research Projects Agency(DARPA)/Office of Naval Research Long Range Anti-Ship Missile (LRASM) demonstration program to deliver an Early Operational Capability (EOC) in the required timeframe. LRASM fills the most urgent air-launched capability gap to complement existing ASuW weapon systems and positions the Department of Defense to address evolving surface warfare threats. LRASM is integral to realizing the National Defense Strategy of combat-credible military forces to deter war, protect the security of our nation and to enable the Joint Force to win should deterrence fail. The development and acquisition of LRASM has been structured to be fielded at a pace relevant to maintain overmatch against long-term strategic competition. Specifically, LRASM directly contributes to building a more lethal force and is a critical enabler for joint lethality in contested environments; deterring adversaries from aggression; ensuring common domains remain open and maintaining favorable regional balances of power.

Budget Item Justification: Funding in this project is for OASuW Increment I / LRASM v1.1 capability improvements to include OT requirements.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021
Congressional Add: LRASM 1.1 capability improvements	48.268	0.000
FY 2020 Accomplishments: N/A		
FY 2021 Plans: N/A		
Congressional Adds Subtotals	48.268	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

OASuW-1 is using an accelerated acquisition approach, with streamlined governance to transition the DARPA/ONR-demonstrated Long Range Anti-Ship Missile (LRASM) for use as an air-launched weapon from USAF and USN platforms. LRASM is integral to realizing the National Defense Strategy of combat-credible military

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 9999 / *Congressional Adds*

forces to deter war, protect the security of our nation and to enable the Joint Force to win should deterrence fail. LRASM supports greater performance of the acquisition system and is demonstrating the delivery of performance at the speed of relevance; organizational structure that supports innovation with a rapid approach that dramatically decreases the timeline from development to fielding. The program is leveraging DoDI 5000.02i Model 4 to structure the acquisition strategy, which includes a highly integrated and concurrent transition design, integration, and developmental / operational test program which successfully met the Early Operation Capability (EOC) fielding threshold required by an Urgent Operational Need Statement (UONS) issued by the fleet. The program is structured in three phases: Technology Maturation, Integration and Test, and Procurement. To manage the accelerated timeline and resulting concurrency, the program uses a structured Knowledge Point review process that support decisions regarding significant program events such as transition from design to integration phase and contract awards. These reviews also provide senior DoD leadership the opportunity to provide focused support and active management of technical and acquisition risk and are chaired by the Service Acquisition Executive, ASN(RDA) (delegated MDA), and the Deputy Director of DARPA. The knowledge points are similar to acquisition milestone reviews, but occur more frequently. Knowledge Point 7 supported Lot 3 procurement and Knowledge Point 8 supported USN EOC decision. The program met the statutory requirements associated with Milestone B at Knowledge Point 3. In addition to the Knowledge Point reviews, the program also conducts Executive Steering Board reviews (also chaired by the MDA). Supporting these reviews, the associated engineering approach is designed to mitigate resulting risk by implementing a rolling-wave engineering progression based on the NAVAIR Systems Engineering Technical Review (SETR) process to enable detailed planning and decisions as the system matures. The LRASM v1.1 capability improvements program, follows in the same manner with continued reviews and test events to achieve incorporation of those improvements on future production units.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 9999 / *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/CPIF	Lockheed Martin Missile and Fire Control : Orlando, FL	0.000	34.268	May 2020	0.000		0.000		-		0.000	-	-	-
Product Development	C/IDIQ	Lockheed Martin : Orlando, FL	0.000	9.000	Aug 2020	0.000		0.000		-		0.000	-	-	-
		Subtotal	0.000	43.268		0.000		0.000		-		0.000	-	-	N/A

Remarks

FY 2020 Congressional increase of funding for LRASM 1.1 capabilities improvements.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support	WR	NSMA : Washington, DC	0.000	5.000	Apr 2020	0.000		0.000		-		0.000	-	-	-
		Subtotal	0.000	5.000		0.000		0.000		-		0.000	-	-	N/A

Remarks

LRASM 1.1 capability improvements survivability support.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support (OT)	C/CPIF	Lockheed Martin Missile and Fire Control : Orlando, FL	19.307	0.000		0.000		0.000		-		0.000	-	-	-
		Subtotal	19.307	0.000		0.000		0.000		-		0.000	-	-	N/A

Remarks

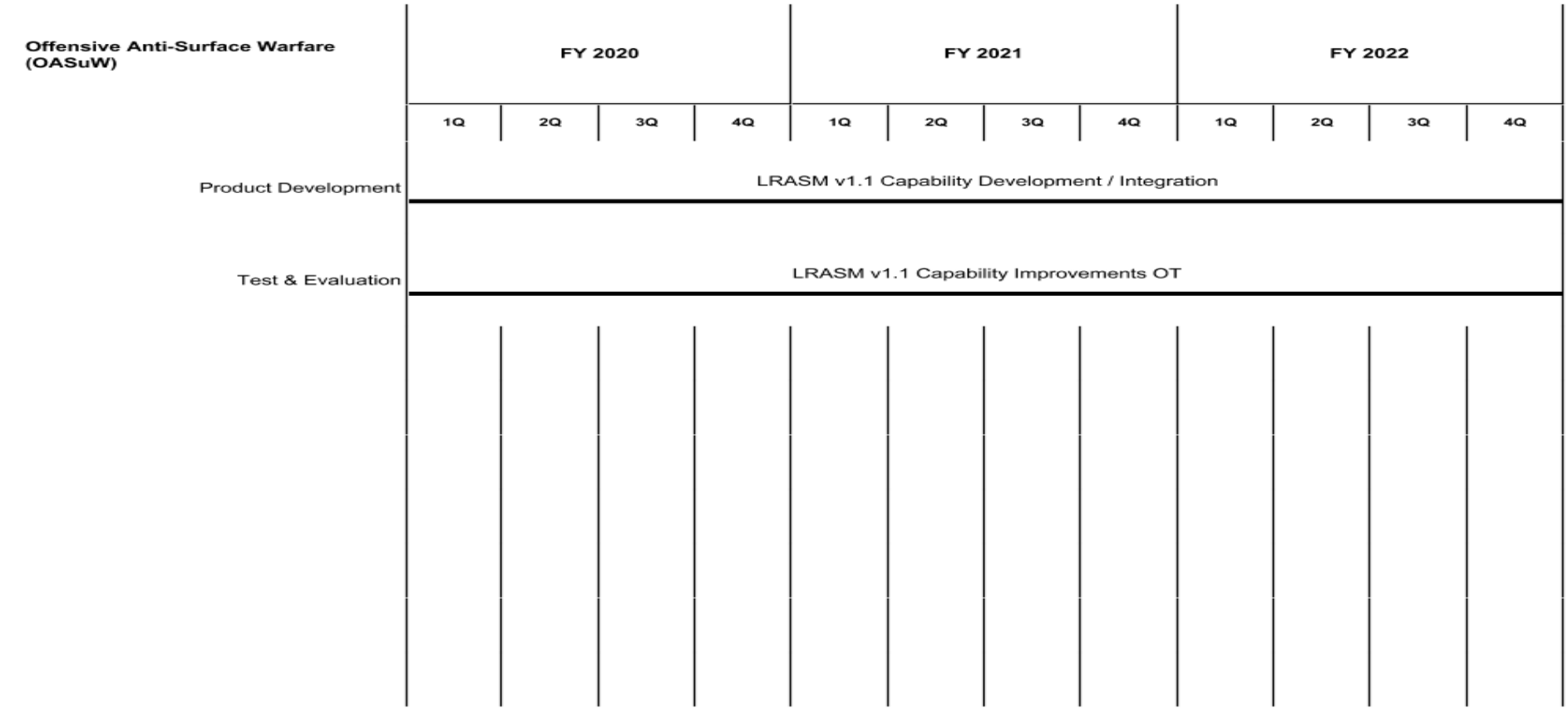
FY 2019 Congressional direction for funding to be utilized for Offensive Anti-Surface Warfare (OASuW) Increment I / Long Range Anti-Ship Missile (LRASM) operational test requirements for 1.1 additional capabilities.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 9999 / *Congressional Adds*

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	19.307	48.268		0.000		0.000		-		0.000	-	-	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2022 Navy		**Date:** May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 9999 / *Congressional Adds*



2022PB - 0604786N - 9999

Exhibit R-4A, **RDT&E Schedule Details:** PB 2022 Navy		**Date:** May 2021
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0604786N / *Offensive Anti-Surface Warfare Weapon Dev*	**Project (Number/Name)** 9999 / *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Offensive Anti-Surface Warfare (OASuW)				
Product Development: LRASM v1.1 Capability Improvements	1	2020	4	2022
Test & Evaluation: LRASM v1.1 Capability Improvements (OT)	1	2020	4	2022