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

R-1 Program Element (Number/Name)

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

PE 0604786N I (U)Offensive Anti-Surface Warfare Weapon Dev

Date: February 2018

Component Development & Prototypes (ACD&P)

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	694.719	301.554	160.694	143.062	-	143.062	51.051	0.000	0.000	0.000	0.000	1,351.080
3337: Offensive Anti-Surface Warfare (OASuW) Weapon	694.719	301.554	160.694	143.062	-	143.062	51.051	0.000	0.000	0.000	0.000	1,351.080

Program MDAP/MAIS Code:

Appropriation/Budget Activity

Project MDAP/MAIS Code(s): P449

A. Mission Description and Budget Item Justification

Offensive Anti-Surface Warfare (OASuW) will be an offensive weapon system that can be air, surface, and subsurface launched in the maritime battle space environment. OASuW will be 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 compliment, existing ASuW weapon systems and positions the Department of Defense to address evolving surface warfare threats.

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.

Budget Item Justification: OASuW-1

Funding supports the delivery of an EOC of OASuW-1 LRASM weapon system, including the transition of the LRASM demonstration design into a fielded air-launched weapon system, using an accelerated acquisition approach, with streamlined governance. 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 to meet the EOC schedule required by the UONS. 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). The knowledge points are similar to acquisition milestone reviews, but occur more frequently and are tailored to program-specific milestone events. Of note, the OASuW Increment I knowledge points are defined differently than GAO defines the same term and are tailored to program-specific milestone events. The program met statutory requirements associated with Milestone B at Knowledge Point 3. In addition to the Knowledge Point reviews, Executive Steering Board reviews, chaired by the MDA, are held at least monthly. 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

PE 0604786N: (U) Offensive Anti-Surface Warfare Weapon...

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R-1 Line #97

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 4: Advanced Component Development & Prototypes (ACD&P)

PE 0604786N I (U)Offensive Anti-Surface Warfare Weapon Dev

matures. This process includes capstone SETR events that are tailored reviews using standard design review criteria. The Technology Maturation efforts in FY 2015 through FY 2017 culminated in a system level Critical Design Review (CDR) level review at SETR 4.0. SETR 3.0 in 4QFY 2015 provided a CDR-level review to support the Knowledge Point 3 decision to initiate the Integration and Test phase for the All Up Round components. SETR 5.0 held in 1QFY 2017 to support Knowledge Point 4 obtained MDA to enter into production.

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.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	313.109	160.694	64.725	-	64.725
Current President's Budget	301.554	160.694	143.062	-	143.062
Total Adjustments	-11.555	0.000	78.337	-	78.337
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-9.517	0.000			
 Program Adjustments 	-50.600	0.000	0.000	-	0.000
 Rate/Misc Adjustments 	0.000	0.000	78.337	-	78.337
 Congressional Directed Reductions 	-2.038	-	-	-	-
Adjustments					
 Congressional Add Adjustments 	50.600	-	-	-	-

Change Summary Explanation

The FY 2019 funding request was reduced by \$0.007 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

FY 2019 miscellaneous adjustment of \$78M from previous President's Budget to current President's Budget is supports the continued OASuW Increment 1 development to ensure tactical dominance for the warfighter over a longer period of time by providing sanctuary employment against capital warships. This continued development expands the mission set to address evolving, persistent and dynamic threats and continues to fill gaps in strike warfare.

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Exhibit R-2A, RDT&E Project J	ustification:	PB 2019 N	lavy							Date: Febr	uary 2018			
Appropriation/Budget Activity 1319 / 4					, , , , ,						l umber/Name) ensive Anti-Surface Warfare Weapon			
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		
3337: Offensive Anti-Surface Warfare (OASuW) Weapon	694.719	301.554	160.694	143.062	-	143.062	51.051	0.000	0.000	0.000	0.000	1,351.080		
Quantity of RDT&E Articles	12	1	-	-	-	-	-	-	-	-				

A. Mission Description and Budget Item Justification

Project MDAP/MAIS Code: P449

Offensive Anti-Surface Warfare (OASuW) will be an offensive weapon system that can be air, surface, and subsurface launched in the maritime battle space environment. OASuW will be 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, 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 compliment, existing ASuW weapon systems and positions the Department of Defense to address evolving surface warfare threats.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: OASuW Development Program	301.554	160.694	143.062	0.000	143.062
Articles:	1	-	-	-	-
FY 2018 Plans:					
The Integration and Test phase of the program will continue in FY 2018 focusing on B-1 fielding and completion of F/A-18 integration including carrier suitability testing. The final test assets will be delivered in FY 2018. The missile firings and associated modeling and simulation effort will continue the system performance test program. The program will complete Knowledge Point 5 in support of the Lot 2 procurement. USAF EOC will be achieved on the B-1 (SETR 7.0) with Knowledge Point 6.					
FY 2019 Base Plans: The Integration and Test phase of the program will continue in FY 2019. The program will complete Knowledge Point 7 in support of the Lot 3 procurement. USN EOC will be achieved on the F/A-18 (SETR 8.0) with Knowledge Point 8. Continued OASuW Increment 1 development (LRASM capability improvements) added to ensure tactical dominance for the warfighter over a longer period of time by providing sanctuary employment					

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 4	,	, ,	umber/Name) ensive Anti-Surface Warfare Weapon

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) against capital warships. This continued development expands the mission set to address evolving, persistent and dynamic threats and continues to fill gaps in strike warfare.	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
FY 2019 OCO Plans: N/A					
FY 2018 to FY 2019 Increase/Decrease Statement: Decreasing due to progression in developmental efforts.					
Accomplishments/Planned Programs Subtotals	301.554	160.694	143.062	0.000	143.062

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

			FY 2019	FY 2019	FY 2019					Cost To	
<u>Line Item</u>	FY 2017	FY 2018	Base	000	<u>Total</u>	FY 2020	FY 2021	FY 2022	FY 2023	Complete	Total Cost
 WPN/2291: LRASM 	54.343	74.733	81.190	-	81.190	74.201	75.000	0.000	0.000	0.000	359.467
 MPAF/8010: LRASM 	71.411	44.728	44.581	-	44.581	0.000	0.000	0.000	0.000	0.000	160.720

Remarks

U.S. Navy WPN funding supports the following quantities:

FY17 - 15

FY18 - 25

FY19 - 25

FY20 - 25

FY21 - 25

U.S. Air Force MPAF funding supports the following quantities:

FY17 - 19

FY18 - 12

FY19 - 12

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. The program is leveraging DoDI 5000.02i Model 4 to structure the acquisition strategy,

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R-1 Line #97

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
1319 / 4	PE 0604786N I (U)Offensive Anti-Surface	3337 I Offensive Anti-Surface Warfare
	Warfare Weapon Dev	(OASuW) Weapon
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which includes a highly integrated and concurrent transition design, integration, and developmental / operational test program to meet the 2018 Early Operation Capability (EOC) fielding schedule 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. Of note, the OASuW-1 knowledge points are defined differently than GAO defines the same term. Knowledge Point 1 supported program initiation and approval of the acquisition strategy; Knowledge Point 2 supported evaluation of the preliminary design of the weapon system as well as release of the Request for Proposal for the Integration and Test phase; Knowledge Point 3 supported evaluation of the final (critical design review level) weapon system design and initiation of/contract award for the Integration and Test phase; Knowledge Point 4 supports the procurement decision for Lot 1 EOC units; and Knowledge Point 5 supports Lot 2 procurement, Knowledge Point 6 supports USAF EOC decision, Knowledge Point 7 supports Lot 3 procurement and Knowledge Point 8 supports USA EOC decision. The program intends to meet the statutory requirements associated with Milestone B at Knowledge Point 3. In addition to the Knowledge Point reviews, Executive Steering Board reviews (also chaired by the MDA) are held at least monthly. 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. This process includes capstone SETR events that are tailored reviews using standard design review criteria. SETR 1.0 in FY 2014 provided a Systems Requirements Review. SETR 2.0 in FY 2015 provided a Preliminary Design Review level review of the system and supported Knowledge Point 2. SETR 3.0 in late 2015 provided a Critical Design Review (CDR) level review of the All Up Round in support of Knowledge Point 3, while SETR 4.0 in FY 2016 provided a CDR level review of the entire weapon system in support of Knowledge Point 4 in early FY 2017, along with flight test information.

E. Performance Metrics

The Knowledge Points are defined reviews with the Executive Steering Board comprised of Service Acquisition Executive, ASN(RDA) (delegated MDA) and the Deputy Director of DARPA to make program decisions at key points in the program life cycle in place of milestone reviews, but tailored to support the accelerated process. The acquisition program baseline was established at Knowledge Point 3.

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

Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name)

1319 I 4

PE 0604786N I (U)Offensive Anti-Surface Warfare Warfare Weapon Dev

3337 I Offensive Anti-Surface Warfare (OASuW) Weapon

Product Developmen	nt (\$ in Mi	llions)		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
Product Development	C/CPIF	Lockheed Martin Missile and Fire Control : Orlando, FL	517.355	216.034	Oct 2016	112.792	Oct 2017	89.185	Oct 2018	-		89.185	0.000	935.366	877.192
Product Development	C/CPFF	Boeing : St. Louis, MO	39.540	20.323	Oct 2016	3.254	Oct 2017	4.944	Oct 2018	-		4.944	0.000	68.061	65.561
		Subtotal	556.895	236.357		116.046		94.129		-		94.129	0.000	1,003.427	N/A

Remarks

FY 2019 Lockheed Martin Company (LMCO) costs includes all integration and test efforts, including increased LRASM capability improvements development, by LMCO and associated sub-contractors to complete Knowledge Points 7 and 8 and the tailored qualification/flight test program.

FY 2019 Boeing costs includes software integration onto the B-1 and the F/A-18 E/F to maintain synchronization with system and hardware development. Software development tests on F/A-18 E/F and Systems Engineering Technical Review (SETR) 8.0 (USN EOC Readiness Review).

Support (\$ in Millior	ıs)			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	Total Cost	Target Value of Contract
Government Support	WR	NAWC AD : Patuxent River,MD	4.446	2.324	Oct 2016	2.303	Oct 2017	2.527	Nov 2018	-		2.527	0.000	11.600	-
Government Support	WR	NAWC WD : China Lake, CA	28.241	11.306	Oct 2016	10.442	Oct 2017	11.120	Nov 2018	-		11.120	0.000	61.109	-
Government Support	WR	NSWC : Various	3.107	0.291	Nov 2016	0.092	Nov 2017	0.063	Nov 2018	-		0.063	0.000	3.553	-
Development Support	C/FFP	NSMA : Washington, DC	11.982	5.570	Dec 2016	5.580	Dec 2017	6.762	Dec 2018	-		6.762	0.000	29.894	28.794
Development Support	MIPR	USAF : Various	0.546	0.425	Oct 2016	0.190	Oct 2017	0.000		-		0.000	0.000	1.161	-
Integrated Logistics Support	WR	NAWC AD : Patuxent River, MD	0.334	0.171	Oct 2016	0.176	Oct 2017	0.200	Nov 2018	-		0.200	0.000	0.881	-
Contractor Support	C/CPFF	JHU/APL : Laurel, MD	11.831	0.000		0.000		0.000		-		0.000	0.000	11.831	11.831
Contractor Support	C/FFP	Schafer Corporation : Arlington, VA	14.163	4.208	Oct 2016	3.719	May 2018	5.293	May 2019	-		5.293	0.000	27.383	25.883

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy Date: February 2018

Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name)

1319 / 4 PE 0604786N I (U)Offensive Anti-Surface 3337 I Offensive Anti-Surface Warfare Warfare Weapon Dev

(OASuW) Weapon

Support (\$ in Millions	s)			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
Mission Planning Support	C/CPFF	Northrup Grumman : Bethpage, NY	5.791	3.797	Oct 2016	0.400	Oct 2017	1.100	Oct 2018	-		1.100	0.000	11.088	10.188
Contractor Support	Various	Various : Various	7.479	0.639	Oct 2016	0.717	Oct 2017	0.931	Oct 2018	-		0.931	0.000	9.766	9.566
Development Support	Various	NRL : Various	0.691	0.885	Nov 2016	0.575	Nov 2017	0.443	Nov 2018	-		0.443	0.000	2.594	2.494
Development Support	C/FPIF	ONR : Arlington, VA	0.000	0.000		0.000		3.800	Dec 2018	-		3.800	0.000	3.800	3.800
Prior Yr Supp no longer funded in the FYDP	Various	Various : Various	2.800	0.000		0.000		0.000		-		0.000	0.000	2.800	2.800
		Subtotal	91.411	29.616		24.194		32.239		-		32.239	0.000	177.460	N/A

Remarks

FY 2019 Support costs consist of support from Government offices and Contractor Support experts associated with threat analysis, CONOPs, and Training and Tactical assessments in support of Knowledge Points 7 and 8, the developmental test program, the Quick Reaction Assessment (QRA), and tactics development supporting USN EOC. Schafer Corporation increased to reflect full funding for Option Year 3 and Option Year 4 in FY 2018 and FY 2019

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
Development Support	WR	NAWC WD : China Lake, CA	18.926	15.224	Oct 2016	13.180	Oct 2017	10.236	Nov 2018	-		10.236	0.000	57.566	-
Development Support	WR	NAWC AD : Patuxent River, MD	11.121	13.082	Oct 2016	3.071	Oct 2017	2.110	Nov 2018	-		2.110	0.000	29.384	-
Development Support	WR	NSWC : Various	0.131	0.210	Nov 2016	0.079	Nov 2017	0.081	Nov 2018	-		0.081	0.000	0.501	-
Development Support	WR	COTF : Norfolk, VA	0.107	0.100	Oct 2016	0.000		0.100	Dec 2018	-		0.100	0.000	0.307	-
Development Support	MIPR	USAF : Various	1.372	3.930	Oct 2016	1.106	Oct 2017	0.472	Oct 2018	-		0.472	0.000	6.880	-
Wind Tunnel Testing	MIPR	AEDC : Arnolds AFB, TN	4.153	0.000		0.000		0.600	Mar 2019	-		0.600	0.000	4.753	-
		Subtotal	35.810	32.546		17.436		13.599		-		13.599	0.000	99.391	N/A

Remarks

FY 2019 Test and Evaluation costs support flight testing, system qualifications, range time, and target costs needed for the F/A-18 E/F to support Knowledge Points 7 and 8, the developmental test program, and the Quick Reaction Assessment (QRA).

PE 0604786N: (U) Offensive Anti-Surface Warfare Weapon... Navy

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

Date: February 2018

Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name)

1319 / 4 PE 0604786N / (U) Offensive Anti-Surface
Warfare Weapon Dev

3337 I Offensive Anti-Surface Warfare (OASuW) Weapon

Management Services (\$ in Millions)		FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Government Support	WR	NAWC AD : Patuxent River, MD	5.659	1.275	Oct 2016	1.311	Oct 2017	1.405	Nov 2018	-		1.405	0.000	9.650	-
Government Support	WR	NAWC WD : China Lake, CA	2.619	1.260	Oct 2016	1.207	Oct 2017	1.290	Nov 2018	-		1.290	0.000	6.376	-
Project Management Support	C/CPFF	NAWC AD : Patuxent River, MD	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	1.600
Travel	Various	NAWC AD : Patuxent River, MD	0.725	0.500	Oct 2016	0.500	Oct 2017	0.400	Oct 2018	-		0.400	0.000	2.125	-
		Subtotal	10.603	3.035		3.018		3.095		-		3.095	0.000	19.751	N/A

Remarks

FY 2019 Management Services costs consist of Non-Headquarters Program Office Management team (Government labor and Contractor support services) required for the management of the program.

	Prior Years	FY	2017	FY 2	2018	FY 2	FY 2	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	694.719	301.554		160.694		143.062	-	143.062	0.000	1,300.029	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy Date: February 2018 Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name) PE 0604786N I (U)Offensive Anti-Surface 3337 I Offensive Anti-Surface Warfare 1319 / 4 Warfare Weapon Dev (OASuW) Weapon Offensive Anti-Surface Weapon FY 2017 FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 (OASuW) 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q |2Q|3Q| 1Q |2Q|3Q 1Q |2Q 3Q 4Q **Acquisition Milestones** KP-4 KP-5 KP-6 KP-7 KP-8 Milestones EOC EOC NAVY AF **Systems Development** Integration & Test Hardware Development Software Development, Integration B-1B SB-17 Dev. B-1 Test B-1B Force Dev. Eval. F/A-18 H14 F/A-18 OTRR F/A-18 OT SETR SETR SETR SETR 6.0 8.0 7.0 USAF (USN 5.0 Flight Systems Engineering Reviews (PRR) Test EOC EOC RR) RR) RR) 2019PB - 0604786N - 3337

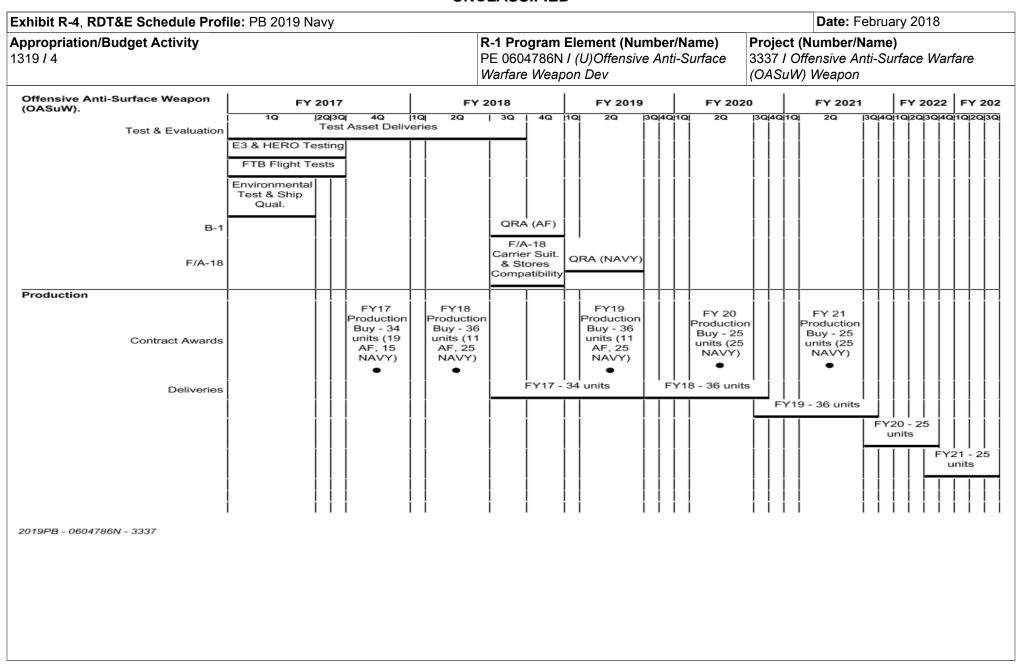


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
,	3	- 3 (umber/Name) ensive Anti-Surface Warfare
	Warfare Weapon Dev	(OASuW)	Weapon

Schedule Details

	Sta	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Offensive Anti-Surface Weapon (OASuW)					
Acquisition Milestones: Milestones: Knowledge Point 4	1	2017	1	2017	
Acquisition Milestones: Milestones: Knowledge Point 5	1	2018	1	2018	
Acquisition Milestones: Milestones: Knowledge Point 6	4	2018	4	2018	
Acquisition Milestones: Milestones: Knowledge Point 7	1	2019	1	2019	
Acquisition Milestones: Milestones: Knowledge Point 8	4	2019	4	2019	
Acquisition Milestones: Milestones: Early Operational Capability (EOC) Air Force	4	2018	4	2018	
Acquisition Milestones: Milestones: Early Operational Capability (EOC) Navy	4	2019	4	2019	
Systems Development: Hardware Development: Integration & Test	1	2017	3	2019	
Systems Development: B-1: B-1 SB-17 Software Development Test	2	2017	1	2018	
Systems Development: B-1: B-1 Force Development Evaluation	1	2018	4	2018	
Systems Development: F/A-18: F/A-18 H14 Operational Test Readiness Review	4	2018	4	2018	
Systems Development: F/A-18: F/A-18 H14 Operational Test	4	2018	4	2019	
Systems Development: Systems Engineering Reviews: System Engineering Technical Review 5.0 (Production Readiness Review)	1	2017	1	2017	
Systems Development: Systems Engineering Reviews: System Engineering Technical Review 6.0 (Flight Test Readiness Review)	4	2017	4	2017	
Systems Development: Systems Engineering Reviews: System Engineering Technical Review 7.0 (USAF EOC Readiness Review)	4	2018	4	2018	
Systems Development: Systems Engineering Reviews: System Engineering Technical Review 8.0 (USN EOC Readiness Review)	3	2019	3	2019	
Offensive Anti-Surface Weapon (OASuW).			,		
Test & Evaluation: Test Asset Deliveries	1	2017	3	2018	

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy Date: February 2018					
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604786N I (U)Offensive Anti-Surface Warfare Weapon Dev	, ,	umber/Name) ensive Anti-Surface Warfare Weapon		

	Start		E	nd
Events by Sub Project	Quarter	Year	Quarter	Year
Test & Evaluation: E3 & HERO Testing	1	2017	3	2017
Test & Evaluation: FTB Flight Tests	1	2017	3	2017
Test & Evaluation: Environmental Test & Ship Qualification	1	2017	1	2017
B-1: Quick Reaction Assessment Testing (AF)	3	2018	4	2018
F/A-18: Quick Reaction Assessment Testing (Navy)	1	2019	2	2019
F/A-18: F/A-18 Carrier Suitability & Stores Compatibility	3	2018	4	2018
Production: Contract Awards: FY17 Production Buy - 34 units (19 AF, 15 NAVY)	4	2017	4	2017
Production: Contract Awards: FY18 Production Buy - 36 units (11 AF, 25 NAVY)	2	2018	2	2018
Production: Contract Awards: FY19 Production Buy - 36 units (11 AF, 25 NAVY)	2	2019	2	2019
Production: Contract Awards: FY 20 Production Buy - 25 units (25 NAVY)	2	2020	2	2020
Production: Contract Awards: FY 21 Production Buy - 25 units (25 NAVY)	2	2021	2	2021
Production: Deliveries: FY17 Deliveries - 34 units	3	2018	2	2019
Production: Deliveries: FY18 Deliveries - 36 units	3	2019	3	2020
Production: Deliveries: FY19 Deliveries - 36 units	3	2020	3	2021
Production: Deliveries: FY 20 Deliveries - 25 units	3	2021	3	2022
Production: Deliveries: FY 21 Deliveries - 25 units	3	2022	3	2023