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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Navy **Date:** February 2015

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604786N I (U) <i>Offensive Anti-Surface Warfare Weapon Dev</i>
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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	77.609	86.683	181.939	285.849	-	285.849	232.751	149.888	123.023	-	-	1,137.742
3337: <i>Offensive Anti-Surface Warfare (OASuW) Weapon</i>	77.609	86.683	181.939	285.849	-	285.849	232.751	149.888	123.023	-	-	1,137.742

**Program MDAP/MAIS Code:**  
**Project MDAP/MAIS Code(s):** 449

**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, 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. Longer term OASuW requirements will be addressed in the future by OASuW Increment II.

Budget Item Justification: OASuW (Increment I)

Funding supports the delivery of an EOC of OASuW Increment I's 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), and the Deputy Director of DARPA. 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 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, 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 2.0 in FY15 provided a Production Design Review level review of the system and supported the Knowledge Point 2 decision to continue toward the Integration and Test phase. The Technology Maturation effort in FY15 and FY16 culminates in a system Critical Design Review (CDR) level review at SETR

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4.0. SETR 3.0 in late 2015 provides a CDR-level review and supports the Knowledge Point 3 decision to initiate the Integration and Test phase for the all-up-round components.

In FY16, engineering design to transition the DARPA demonstration design to a weaponized configuration continues at an accelerated pace during the Technology Maturation phase, and the Integration and Test phase will be initiated. The Technology Maturation phase will conduct two major design reviews in FY16, completing this phase and solidifying the design required for Integration and Test phase. As the Integration and Test phase begins, test articles will be procured to support system integration, ground test, and flight test. This creates a compressed, concurrent schedule in FY16, which is required to meet the fleet fielding requirement specified in the UONS that drives the need for increased funding levels in FY16.

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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	90.985	202.939	287.991	-	287.991
Current President's Budget	86.683	181.939	285.849	-	285.849
Total Adjustments	-4.302	-21.000	-2.142	-	-2.142
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-21.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.136	-			
• SBIR/STTR Transfer	-4.166	-			
• Rate/Misc Adjustments	-	-	-2.142	-	-2.142

**Change Summary Explanation**

Schedule:

Updated to address accelerated acquisition approach to meet the urgent need for an air launched anti-surface warfare capability.

Knowledge Point 2 moved from 4th Qtr 2014 to 1st Qtr 2015 (update decision date).

SETR 3.0 (Production Design Review level) added 4th Qtr 2015.

Knowledge Point 3 moved from 4th Qtr 2015 to 1st Qtr 2016 (update decision need date).

Milestone B added, coincident with Knowledge Point 3 (MDA decision at Knowledge Point 2).

SETR 4.0 (Critical Design Review level) moved from 2nd Qtr 2016 to 3rd Qtr 2016 (Integrated Master Schedule forecast update).

Knowledge Point 5 moved from 2nd Qtr 2018 to 4th Qtr 2018 (updated decision need date).

Test assets added to FY2014-2018 with deliveries starting in 3rd Qtr 2015 through 2nd Qtr 2018 (updated fidelity of plan).

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Production schedule added to FY2017-2020 with deliveries starting in 2nd Qtr 2018 through 1st Qtr 2022 (updated fidelity of plan).		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Navy										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 1319 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604786N / (U)Offensive Anti-Surface Warfare Weapon Dev				<b>Project (Number/Name)</b> 3337 / Offensive Anti-Surface Warfare (OASuW) Weapon			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3337: <i>Offensive Anti-Surface Warfare (OASuW) Weapon</i>	77.609	86.683	181.939	285.849	-	285.849	232.751	149.888	123.023	-	-	1,137.742
Quantity of RDT&E Articles		2	28	24	-	24	8	2	-	-		
<b>Project MDAP/MAIS Code:</b> 449												

**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, 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. Longer term OASuW requirements will be addressed in the future by OASuW Increment II.

Budget Item Justification: OASuW (Increment I)

Funding supports the delivery of an EOC of OASuW Increment I's 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), and the Deputy Director of DARPA. 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 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, 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 2.0 in FY15 provided a Production Design Review level review of the system and supported the Knowledge Point 2 decision to continue toward the Integration and Test phase. The Technology Maturation effort in FY15 and FY16 culminates in a system Critical Design Review (CDR) level review at SETR 4.0. SETR 3.0 in late 2015 provides a CDR-level review and supports the Knowledge Point 3 decision to initiate the Integration and Test phase for the all-up-round components.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Navy **Date:** February 2015

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604786N / (U)Offensive Anti-Surface Warfare Weapon Dev	<b>Project (Number/Name)</b> 3337 / Offensive Anti-Surface Warfare (OASuW) Weapon
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In FY16, engineering design to transition the DARPA demonstration design to a weaponized configuration continues at an accelerated pace during the Technology Maturation phase, and the Integration and Test phase will be initiated. The Technology Maturation phase will conduct two major design reviews in FY16, completing this phase and solidifying the design required for Integration and Test phase. As the Integration and Test phase begins, test articles will be procured to support system integration, ground test, and flight test. This creates a compressed, concurrent schedule in FY16, which is required to meet the fleet fielding requirement specified in the UONS that drives the need for increased funding levels in FY16.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<b>Title:</b> OASuW Development Program	86.683	181.939	285.849	-	285.849
<b>Articles:</b>	2	28	24	-	24
<b>FY 2014 Accomplishments:</b>					
Completed technology transition risk reduction efforts and initiated accelerated program Technology Maturation phase, including design activity and risk reduction to transition the DARPA/ONR LRASM demonstration program into an early operational capability. This transition included a Request for Proposal and contract award for activities enabling completion of a preliminary design review in early FY15 that will support further sensor and avionics hardware development and fabrication of hardware for the subsystem and system qualification, integration and test. FY14 test assets are early units required for risk reduction activities in advance of testing mature system components in FY16 and beyond.					
<b>FY 2015 Plans:</b>					
Primary efforts include continued weapon system design and hardware development to support subsystem design reviews. Additional activities include identification and design of weapon system test sets required in support of subsystem and system level testing, and initial integration design/development on the USAF and USN launch platforms, which include mission planning development and environmental qualification. Test assets procured in FY15 will be utilized to test the separation qualities of the weapon off of the launch platforms, develop the interface between the weapon and the launch platforms, and qualify the weapon in the operational electro-magnetic environment.					
<b>FY 2016 Base Plans:</b>					
The Integration and Test phase of the program will be initiated in FY16, concurrently with the completion of the Technology Maturation phase. This program concurrency is required to meet the Early Operational Capability (EOC) fielding timeline identified by the fleet. Primary efforts include weapon system design maturation to support completion of full system critical design review and system qualification in preparation for a Production Readiness Review in FY17. These efforts will be supported by subsystem testing utilizing a Flying Test Bed,					

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
laboratory assets and associated models. Additional activities include integration design/development on the launch platforms as well as procurement of free flight test items.  <i><b>FY 2016 OCO Plans:</b></i> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	86.683	181.939	285.849	-	285.849

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• WPN/2291: LRASM	-	-	-	-	-	30.000	75.000	75.000	85.000	-	265.000
• MPAF/8010: LRASM	-	-	-	-	-	60.000	45.000	45.000	-	-	150.000

**Remarks**

**D. Acquisition Strategy**

OASuW Increment I 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, 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 Increment I 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 supports 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 EOC units for the B-1; and Knowledge Point 5 supports the procurement decision for EOC units for the F/A-18E/F. 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 FY14 provided a Systems Requirements Review. SETR 2.0 in FY15 provided a Preliminary Design Review level review of the system and supported Knowledge Point 2. SETR 3.0 in late 2015 will provide a Critical Design Review (CDR) level review

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Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
1319 / 4	PE 0604786N / (U)Offensive Anti-Surface Warfare Weapon Dev	3337 / Offensive Anti-Surface Warfare (OASuW) Weapon

of the All-up Round in support of Knowledge Point 3, while SETR 4.0 in FY16 will provide a CDR level review of the entire weapon system in support of Knowledge Point 4 in early FY17, 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 will be established at Knowledge Point 3.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604786N / (U)Offensive Anti-Surface Warfare Weapon Dev	<b>Project (Number/Name)</b> 3337 / Offensive Anti-Surface Warfare (OASuW) Weapon
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<b>Product Development (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Product Development	C/CPIF	Lockheed Martin Missile and Fire Control : Orlando, FL	47.563	56.812	Apr 2014	130.025	Oct 2014	214.812	Oct 2015	-		214.812	323.482	772.694	772.694
Product Development	C/CPFF	Boeing : St. Louis, MO	1.739	3.245	Jun 2014	12.346	Nov 2014	17.830	Nov 2015	-		17.830	30.714	65.874	65.874
<b>Subtotal</b>			49.302	60.057		142.371		232.642		-		232.642	354.196	838.568	838.568

**Remarks**  
 FY16 LMCO costs includes all product development by LMCO and associated sub-contractors to meet TRR, SETR 4.0, PRR and Knowledge Point 4.  
 FY16 Boeing costs includes all software development and integration onto the B-1B and the F/A-18 E/F to meet TRR, SETR 4.0, PRR and Knowledge Point 4.

<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Government Support	WR	NAWC AD : Patuxent River, MD	0.000	0.311	Dec 2013	1.520	Dec 2014	1.568	Nov 2015	-		1.568	13.962	17.361	-
Government Support	WR	NAWC WD : China Lake, CA	5.027	9.233	Dec 2013	13.244	Jan 2015	13.641	Nov 2015	-		13.641	20.943	62.088	-
Government Support	WR	NSWC : Various	2.692	0.220	Jan 2014	0.070	Jan 2015	0.072	Nov 2015	-		0.072	3.201	6.255	-
Development Support	C/FFP	NSMA : Washington, DC	2.495	2.752	Jan 2014	2.210	Nov 2014	2.276	Jan 2016	-		2.276	6.332	16.065	16.065
Development Support	MIPR	USAF : Various	0.000	0.185	Nov 2013	0.328	Nov 2014	0.338	Nov 2015	-		0.338	10.000	10.851	-
Development Support	MIPR	USA : White Sands, NM	2.800	-		-		-		-		-	-	2.800	-
Integrated Logistics Support	WR	NAWC AD : Patuxent River, MD	0.000	0.165	Dec 2013	0.168	Nov 2014	0.171	Nov 2015	-		0.171	1.601	2.105	-
Contractor Support	C/CPFF	JHU/APL : Laurel, MD	5.450	3.091	May 2014	2.299	Dec 2014	2.368	Dec 2015	-		2.368	3.060	16.268	16.268
Contractor Support	C/FFP	Schaffer Corporation : Arlington, VA	0.685	3.365	Mar 2014	3.508	Dec 2014	3.613	Dec 2015	-		3.613	5.084	16.255	16.255



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<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Mission Planning Support	C/CPFF	Northrup Grummann : Bethpage, NY	0.000	0.246	Sep 2014	1.073	Jan 2015	0.843	Jan 2016	-		0.843	5.432	7.594	7.594
Contractor Support	Various	Various : Various	5.270	0.272	Mar 2014	0.367	Nov 2014	0.379	Nov 2015	-		0.379	1.016	7.304	7.304
<b>Subtotal</b>			24.419	19.840		24.787		25.269		-		25.269	70.631	164.946	-

**Remarks**  
FY16 Support costs consist of support from Government Technical Program Office (TPO) and Contractor Support experts associated with threat analysis, CONOPs, and Training and Tactical assessments in support of TRR, SETR 4.0, PRR and Knowledge Point 4.

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Development Support	WR	NAWC WD : China Lake, CA	2.109	1.788	Dec 2013	5.842	Jan 2015	20.000	Nov 2015	-		20.000	57.521	87.260	-
Development Support	WR	NAWC AD : Patuxent River, MD	0.102	0.252	Dec 2013	0.738	Dec 2014	5.028	Nov 2015	-		5.028	14.666	20.786	-
Development Support	WR	NSWC : Various	0.000	-		0.064	Nov 2014	0.066	Nov 2015	-		0.066	0.178	0.308	-
Development Support	WR	COTF : Norfolk, VA	0.000	0.055	Jan 2014	0.050	Nov 2014	0.052	Nov 2015	-		0.052	0.178	0.335	-
Development Support	MIPR	USAF : Various	0.000	0.191	May 2014	0.085	Nov 2014	0.088	Nov 2015	-		0.088	0.178	0.542	-
Wind Tunnel Testing	MIPR	AEDC : Arnolds AFB, TN	0.000	0.250	May 2014	5.353	Oct 2014	-		-		-	-	5.603	-
<b>Subtotal</b>			2.211	2.536		12.132		25.234		-		25.234	72.721	114.834	-

**Remarks**  
FY16 Test and Evaluation costs support the flight testing, system qualifications, range time and target costs needed for the B-1B and F/A-18 E/F to support TRR, SETR 4.0, PRR and Knowledge Point 4.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy** **Date:** February 2015

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<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Government Support	WR	NAWC AD : Patuxent River, MD	1.290	1.657	Dec 2013	1.422	Dec 2014	1.451	Nov 2015	-		1.451	4.353	10.173	-
Government Support	WR	NAWC WD : China Lake, CA	0.000	1.234	Dec 2013	0.888	Jan 2015	0.907	Nov 2015	-		0.907	2.721	5.750	-
Project Management Support	C/CPFF	NAWC AD : Patuxent River, MD	0.362	1.179	Dec 2013	0.104	Dec 2014	0.106	Dec 2015	-		0.106	0.320	2.071	2.071
Travel	Various	NAWC AD : Patuxent River, MD	0.025	0.180	Nov 2013	0.235	Oct 2014	0.240	Oct 2015	-		0.240	0.720	1.400	-
<b>Subtotal</b>			1.677	4.250		2.649		2.704		-		2.704	8.114	19.394	-

**Remarks**  
FY16 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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	77.609	86.683	181.939	285.849	-	285.849	505.662	1,137.742	-

**Remarks**  
Prior year and FY14 updated for actuals.

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**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604786N / (U)Offensive Anti-Surface Warfare Weapon Dev	<b>Project (Number/Name)</b> 3337 / Offensive Anti-Surface Warfare (OASuW) Weapon
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Offensive Anti-Surface Weapon (OASuW)	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
<b>Acquisition Milestones</b>																												
Milestones	KP-1 ▼				KP-2 ▼				KP-3 ▼				KP-4 ▼				KP-5 ▼				EOC - AF ▲				EOC - NAVY ▲			
<b>Systems Development</b>																												
Hardware Development	Technology Maturation																											
													I&T CA ●				Integration & Test											
Software Development, Integration & Test																												
B-1B													B-1B SB-17 Dev. Test				B-1B Force Dev. Eval.											
F/A-18													F/A-18 H14 Capt. Test				F/A-18 H14 OTRR ■				F/A-18 OT							
Systems Engineering Reviews	SETR 1.0 ■				SETR 2.0 ■				SETR 3.0 ■				TRR ■				SETR 4.0 ■				PRR ■							

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**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604786N / (U)Offensive Anti-Surface Warfare Weapon Dev	<b>Project (Number/Name)</b> 3337 / Offensive Anti-Surface Warfare (OASuW) Weapon
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Offensive Anti-Surface Weapon (OASuW).	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Test & Evaluation	Test Asset Deliveries																											
					RF Sensor & MCU Test and Verification				E3 & HERO Testing																			
									FTB Flight Tests																			
									Env. Test & Ship Qual.																			
B-1B																	QRA (AF)											
F/A-18					F/A-18 Wind Tunnel Testing												F/A-18 Carrier Suit. & Stores Compatibility				QRA (NAVY)							
<b>Production</b>																												
Contract Awards													FY17 Production Buy - 30 units (20 AF, 10 NAVY)				FY18 Production Buy - 40 units (15 AF, 25 NAVY)				FY19 Production Buy - 40 units (15 AF, 25 NAVY)				FY20 Production Buy - 28 units (28 NAVY)			
Deliveries																	FY17 - 30 units				FY18 - 40 units				FY19 - 40 units			

*2016PB - 0604786N - 3337 Schedule changes reflect program decisions based on current approved Acquisition Strategy.*

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Navy		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604786N / (U)Offensive Anti-Surface Warfare Weapon Dev	<b>Project (Number/Name)</b> 3337 / Offensive Anti-Surface Warfare (OASuW) Weapon

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Offensive Anti-Surface Weapon (OASuW)</b>				
Acquisition Milestones: Milestones: Knowledge Point 1	2	2014	2	2014
Acquisition Milestones: Milestones: Knowledge Point 2	1	2015	1	2015
Acquisition Milestones: Milestones: Knowledge Point 3	2	2016	2	2016
Acquisition Milestones: Milestones: Knowledge Point 4	1	2017	1	2017
Acquisition Milestones: Milestones: Knowledge Point 5	4	2018	4	2018
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: Technology Maturation Phase	1	2014	4	2016
Systems Development: Hardware Development: Integration & Test Contract Award	2	2016	2	2016
Systems Development: Hardware Development: Integration & Test	2	2016	3	2019
Systems Development: B-1B: B-1B SB-17 Software Development Test	2	2017	1	2018
Systems Development: B-1B: B-1B Force Development Evaluation	1	2018	4	2018
Systems Development: F/A-18: F/A-18 H14 Captive Carriage Test	1	2016	4	2016
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 1.0	2	2014	2	2014
Systems Development: Systems Engineering Reviews: System Engineering Technical Review 2.0	1	2015	1	2015
Systems Development: Systems Engineering Reviews: System Engineering Technical Review 3.0	4	2015	4	2015

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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 (Number/Name)		
1319 / 4	PE 0604786N / (U)Offensive Anti-Surface Warfare Weapon Dev	3337 / Offensive Anti-Surface Warfare (OASuW) Weapon		
Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Systems Development: Systems Engineering Reviews: System Engineering Technical Review 4.0	3	2016	3	2016
Systems Development: Systems Engineering Reviews: Technical Readiness Review	2	2016	2	2016
Systems Development: Systems Engineering Reviews: Production Readiness Review	4	2016	4	2016
<b>Offensive Anti-Surface Weapon (OASuW).</b>				
Test & Evaluation: Test Asset Deliveries	3	2015	2	2018
Test & Evaluation: E3 & HERO Testing	3	2016	3	2017
Test & Evaluation: RF Sensor and MCU Testing and Verification	1	2015	1	2016
Test & Evaluation: Flying Test Bed Flight Tests	1	2016	3	2017
Test & Evaluation: Environmental Test & Ship Qualification	2	2016	1	2017
B-1B: Quick Reaction Assessment Testing (AF)	3	2018	4	2018
F/A-18: F/A-18 Wind Tunnel Testing	4	2014	2	2015
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 - 30 units (20 AF, 10 NAVY)	2	2017	2	2017
Production: Contract Awards: FY18 Production Buy - 40 units (15 AF, 25 NAVY)	2	2018	2	2018
Production: Contract Awards: FY19 Production Buy - 40 units (15 AF, 25 NAVY)	2	2019	2	2019
Production: Contract Awards: FY20 Production Buy - 28 units (28 NAVY)	2	2020	2	2020
Production: Deliveries: FY17 Deliveries - 30 units	2	2018	1	2019
Production: Deliveries: FY18 Deliveries - 40 units	2	2019	1	2020
Production: Deliveries: FY19 Deliveries - 40 units	2	2020	4	2020