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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2017 Navy **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605504N / <i>Multi-Mission Maritime (MMA) Increment III</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	91.616	182.220	-	182.220	183.969	195.733	151.739	154.901	Continuing	Continuing
3218: <i>P-8A Spiral 2 Development</i>	0.000	0.000	91.616	182.220	-	182.220	183.969	195.733	151.739	154.901	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The P-8A Increment 3 program consist of sequential incremental enhancements to system capabilities that will retain cost-wise effectiveness for major combat operations. Increment 3 will incorporate improvements to aircraft systems including Combat System architecture improvements, Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASuW) sensor improvements, communication capability upgrades, ASuW Net Enabled Weapon (NEW), Higher-Than-Secret (HTS) security capability, High Altitude ASW Weapons Capability (HAAWC) with datalink, and Rapid Capability Insertion (RCI) Engineering Change Proposals (ECPs).

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	91.616	182.220	-	182.220
Total Adjustments	0.000	91.616	182.220	-	182.220
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-12.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	104.116			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	0.000	0.000	182.220	-	182.220

**Change Summary Explanation**

Technical: Not applicable.

Schedule:

Funding transferred from PE 0605500N to new PE 0605504N.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Navy										<b>Date:</b> February 2016		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605504N / <i>Multi-Mission Maritime (MMA) Increment III</i>				<b>Project (Number/Name)</b> 3218 / <i>P-8A Spiral 2 Development</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3218: <i>P-8A Spiral 2 Development</i>	0.000	0.000	91.616	182.220	-	182.220	183.969	195.733	151.739	154.901	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The P-8A Increment 3 program consist of sequential incremental enhancements to system capabilities that will retain cost-wise effectiveness for major combat operations. Increment 3 will incorporate improvements to aircraft systems including Combat System architecture improvements, Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASuW) sensor improvements, communication capability upgrades, ASuW Net Enabled Weapon (NEW), Higher-Than-Secret (HTS) security capability, and High Altitude ASW Weapons Capability (HAAWC) with datalink.

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

	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
<b>Title:</b> Perform technology demonstrations and analyses of proposed new capabilities	0.000	82.168	156.596	0.000	156.596
<b>Articles:</b>	-	-	-	-	-
<b>FY 2015 Accomplishments:</b> N/A					
<b>FY 2016 Plans:</b> Continue execution of Spiral 2 (Increment 3) Applications Based Architecture (ABA) system development, Risk Reduction Interface and Capability Analysis contracting efforts. Develop and award competitive Wide Band SATCOM system hardware procurement contract. Continue Lead Capability Integrator (LCI), core Combat System architecture prototyping, capability application prototyping, and integration analysis efforts. Continue Capability Development and Integration Engineering Change Proposal (ECP) maturity efforts to include Anti-Submarine Warfare (ASW) capability, Wide Band SATCOM, Net Enabled Weapon, and Sensor Upgrades. Continue P-8A TOC design and integration efforts. Prepare, create, and conduct program Milestone activities in preparation of formal "Ready For Proposal (RFP) Release" Milestone. Prepare and execute all Increment 3 System Engineering Technical Review (SETR) activities necessary to conduct formal program Preliminary Design Review (PDR) event.					
<b>FY 2017 Base Plans:</b> Continue execution of Spiral 2 (Increment 3) Applications Based Architecture (ABA) system development, Risk Reduction Interface and Capability Analysis contracting efforts. Develop and award competitive Wide Band SATCOM system hardware procurement contract. Continue Lead Capability Integrator (LCI) and integration					



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Navy		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605504N / <i>Multi-Mission Maritime (MMA) Increment III</i>	<b>Project (Number/Name)</b> 3218 / <i>P-8A Spiral 2 Development</i>

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

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2017</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• APN/0586: <i>P-8 Series</i>	29.797	28.092	18.836	-	18.836	18.642	206.008	198.574	202.575	2,601.973	3,316.981

**Remarks**

BLI0586 reflects the P-8A total program funding not just Increment 3.

**D. Acquisition Strategy**

As part of the P-8A evolutionary acquisition strategy, Spiral 2 (Increment 3) will incorporate the capabilities defined in the JROC approved P-8A Increment 2/3 Capability Development Document. These capabilities will be developed as a series of ECP's for the P-8A and Tactical Operations Center (ground support facility) similar to the approach used for Increment 2.

**E. Performance Metrics**

Continue development of architectural prototyping and maturity of capability ECPs.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605504N / <i>Multi-Mission Maritime (MMA) Increment III</i>	<b>Project (Number/Name)</b> 3218 / <i>P-8A Spiral 2 Development</i>
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<b>Product Development (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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			
Primary Hdw Dev - RR Interface	C/CPIF	Boeing : Seattle	0.000	0.000		5.803	Nov 2015	0.000		-		0.000	0.000	5.803	5.803
Primary HW Dev - Capability Analysis	C/CPFF	Boeing : Seattle	0.000	0.000		8.433	Mar 2016	0.000		-		0.000	0.000	8.433	8.433
Primary HW Dev - Capability Dev & Integration	C/CPFF	Boeing : Seattle	0.000	0.000		10.000	Apr 2016	56.657	Oct 2016	-		56.657	8.000	74.657	74.657
Primary HW Dev - ABA SW Dev Vendor A	C/CPIF	Raytheon : Dallas, TX	0.000	0.000		6.156	Oct 2015	3.508	Oct 2016	-		3.508	0.000	9.664	9.664
Primary HW Dev - ABA SW Dev Vendor B	C/CPIF	Lockheed Martin : Manassas, VA	0.000	0.000		6.156	Oct 2015	3.930	Oct 2016	-		3.930	0.000	10.086	10.086
Primary HW Dev - Combat Systems	TBD	TBD : TBD	0.000	0.000		0.000		25.488	Jun 2017	-		25.488	99.521	125.009	-
Primary HW Dev - Platform Integration	C/CPFF	Boeing : Seattle	0.000	0.000		0.000		10.000	Jun 2017	-		10.000	240.020	250.020	250.020
Primary HW Dev - Prototyping	Various	Various : Various	0.000	0.000		6.000	Nov 2015	6.000	Nov 2016	-		6.000	0.000	12.000	-
Primary HW Dev - Wideband SATCOM	TBD	TBD : TBD	0.000	0.000		0.000		8.000	Oct 2016	-		8.000	0.000	8.000	-
RCI2 - ECP3	C/CPFF	Boeing : Seattle	0.000	0.000		14.317	Oct 2015	12.500	Oct 2016	-		12.500	0.000	26.817	26.817
LCI Development & Integration	WR	NAWC AD : Pax River, MD	0.000	0.000		16.043	Oct 2015	17.252	Oct 2016	-		17.252	62.320	95.615	-
Sys Eng (gov)	WR	NAWC AD : Pax River, MD	0.000	0.000		9.260	Nov 2015	13.261	Nov 2016	-		13.261	48.310	70.831	-
<b>Subtotal</b>			0.000	0.000		82.168		156.596		-		156.596	458.171	696.935	-

**Remarks**  
FY17 Combat Systems initial contract award will require immediate expenditure for procurement of developmental hardware.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)						Project (Number/Name)					
1319 / 5				PE 0605504N / Multi-Mission Maritime (MMA) Increment III						3218 / P-8A Spiral 2 Development					
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Sup	WR	NAWC AD : Pax River, MD	0.000	0.000		0.757	Nov 2015	0.975	Nov 2016	-		0.975	3.443	5.175	-
Studies & Analysis	C/CPFF	JHU : Pax River, MD	0.000	0.000		0.801	Nov 2015	0.841	Nov 2016	-		0.841	0.000	1.642	1.642
<b>Subtotal</b>			0.000	0.000		1.558		1.816		-		1.816	3.443	6.817	-
Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
Dev Test & Eval	WR	NAWC AD : Pax River, MD	0.000	0.000		1.295	Nov 2015	13.336	Nov 2016	-		13.336	Continuing	Continuing	Continuing
GFE/GFI/GFP	WR	NAWC AD : Pax River, MD	0.000	0.000		1.279	Nov 2015	4.590	Nov 2016	-		4.590	16.754	22.623	-
Oper Test & Eval	WR	NAWC AD : Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	62.332	62.332	-
Test Assets	WR	NAWC AD : Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	32.832	32.832	-
<b>Subtotal</b>			0.000	0.000		2.574		17.926		-		17.926	-	-	-
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
Eng Tech Serv (NON-FFRDC)	C/CPFF	Various : Various	0.000	0.000		0.981	Nov 2015	1.090	Nov 2016	-		1.090	0.000	2.071	2.071
Mgmt Suppt Serv (NON-FFRDC)	C/CPFF	RBC : Alexandria, VA	0.000	0.000		2.563	Nov 2015	2.691	Nov 2016	-		2.691	7.931	13.185	13.185
Program Mgmt Support	WR	NAWC AD : Pax River, MD	0.000	0.000		1.672	Nov 2015	2.001	Nov 2016	-		2.001	4.110	7.783	-
Travel	Allot	NAWC AD : Pax River, MD	0.000	0.000		0.100	Oct 2015	0.100	Nov 2016	-		0.100	0.400	0.600	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605504N / <i>Multi-Mission Maritime (MMA) Increment III</i>	<b>Project (Number/Name)</b> 3218 / <i>P-8A Spiral 2 Development</i>
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<b>Management Services (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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			
<b>Subtotal</b>			0.000	0.000		5.316		5.882		-		5.882	12.441	23.639	-

**Remarks**  
Continued engineering and management support reflected in FY16 profile are necessary to mature prototyping efforts.

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	0.000	91.616	182.220	-	182.220	-	-	-

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605504N / <i>Multi-Mission Maritime (MMA) Increment III</i>	<b>Project (Number/Name)</b> 3218 / <i>P-8A Spiral 2 Development</i>
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	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021					
	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>P-8A Spiral 2 Development</b>																														
<b>Acquisition Milestones</b>																														
Milestones													▲					▲												
<b>Systems Development</b>																														
Reviews	ABA S/W DEV & Prototyping												Capability Development & Integration																	
													■					■												
<b>Test &amp; Evaluation</b>																														
Integrated Test													Integrated Test																	
Lab Testing													Lab Testing																	
<b>Contract Awards</b>																														
Cap Dev & Int					●								●																	
SATCOM									●																					
Combat Sys Dev													●																	
Platform Integ													●																	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2017 Navy</b>		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605504N / <i>Multi-Mission Maritime (MMA) Increment III</i>	<b>Project (Number/Name)</b> 3218 / <i>P-8A Spiral 2 Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>P-8A Spiral 2 Development</i></b>				
Acquisition Milestones: Milestones: Harpoon 2+ IOC	1	2019	1	2019
Acquisition Milestones: Milestones: Initial Capability	1	2018	1	2018
Systems Development: ABA Software Development and Prototyping	1	2015	3	2017
Systems Development: Capability Development & Integration	3	2015	4	2021
Systems Development: Reviews: Preliminary Design Review (PDR)	2	2017	2	2017
Systems Development: Reviews: Critical Design Review (CDR)	3	2018	3	2018
Test & Evaluation: Integrated Test (IT)	3	2017	4	2021
Test & Evaluation: Lab Testing	1	2016	4	2021
Contract Awards: Contract Award - Capability Development & Integration	3	2016	3	2016
Contract Awards: Combat Systems Development	4	2017	4	2017
Contract Awards: Platform Integration	4	2017	4	2017
Contract Awards: Contract Award - SATCOM	1	2017	1	2017

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