Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 5: System

Development & Demonstration (SDD)

PE 0604221N I P-3 Modernization Program

=	/											
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO <sup>#</sup>	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	49.804	3.170	0.791	1.710	-	1.710	1.772	1.876	1.897	1.933	Continuing	Continuing
1152: P-3 Sensor Integration	34.041	1.238	-	-	-	-	-	-	-	-	-	35.279
3016: Fatigue Life Mgmt Program	15.763	1.932	0.791	1.710	-	1.710	1.772	1.876	1.897	1.933	Continuing	Continuing

<sup>&</sup>lt;sup>#</sup> The FY 2015 OCO Request will be submitted at a later date.

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

This program provides for P-3C aircraft systems development and test in subsurface and surface surveillance, search, detection, localization, classification, attack and communications in support of Sea Shield/Sea Power 21. The P-3C Sensor Integration project integrates advanced and future Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASuW) sensors, weapons systems, and supporting technology into legacy P-3C systems and phased capabilities upgrades. The program also advances Air Acoustic Rapid Cots Insertion (ARCI) efforts by replacing legacy MIL-SPEC UYS-1 with increasingly open, Commercial Off The Shelf-based architecture. Also, P-3 Sensor Integration will expand software and hardware technology of P-3 systems to integrate additional sensor and processing capabilities, environmental prediction tools, tactical decision aides, color capabilities and communications to improve aircrew tactical proficiency and battlespace awareness. Sensor Integration is a continuous effort to integrate and test newly evolving ASW and ASuW technologies such as Improved Extended Echo Ranging and Multistatic Acoustic Coherent family of Multi-Static active systems, ARCI, Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements. The Over the Horizon (OTH) Wideband system will provide the P-3C ASuW Improvement Program aircraft the capability to conduct OTH Satellite communications which will allow the on-station aircraft to transmit real-time sensitive acoustic intelligence data which will maximize enemy detections, tracking and engagement opportunities.

Fatigue Life Management Program is required to manage P-3/EP-3 inventory fatigue life and includes ongoing structural analysis, analyzing emergent structural issues, conducting engineering studies, assessing Fleet impact, and applying new technologies such as Non-Destructive Inspection techniques.

This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

PE 0604221N: P-3 Modernization Program

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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy

Appropriation/Budget Activity

1319: Research, Development, Test & Evaluation, Navy I BA 5: System

Development & Demonstration (SDD)

R-1 Program Element (Number/Name)

PE 0604221N I P-3 Modernization Program

Date: March 2014

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	<b>FY 2015 Base</b>	FY 2015 OCO	FY 2015 Total
Previous President's Budget	3.451	1.791	1.810	-	1.810
Current President's Budget	3.170	0.791	1.710	-	1.710
Total Adjustments	-0.281	-1.000	-0.100	-	-0.100
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-1.000			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
<ul> <li>Reprogrammings</li> </ul>	-	-			
SBIR/STTR Transfer	-0.019	-			
<ul> <li>Rate/Misc Adjustments</li> </ul>	-	-	-0.100	-	-0.100
Congressional General Reductions	-0.262	-	-	-	-
Adjustments					

# **Change Summary Explanation**

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Ju	xhibit R-2A, RDT&E Project Justification: PB 2015 Navy												
Appropriation/Budget Activity 1319 / 5		_		t (Number/ odernization	lumber/Name) Sensor Integration								
COST (\$ in Millions)	Prior Years				FY 2019	Cost To Complete	Total Cost						
1152: P-3 Sensor Integration	34.041	1.238	-	-	-	-	-	-	-	-	-	35.279	
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-			

<sup>\*</sup> The FY 2015 OCO Request will be submitted at a later date.

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

This program provides for P-3C aircraft systems development and test in subsurface and surface surveillance, search, detection, localization, classification, attack and communications in support of Sea Shield/Sea Power 21.

The P-3C Sensor Integration project integrates advanced and future Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASuW) sensors, weapons systems, and supporting technology into legacy P-3C systems and phased capabilities upgrades. The program also advances Air Acoustic Rapid Cots Insertion (ARCI) efforts by replacing legacy MIL-SPEC UYS-1 with increasingly open, Commercial Off The Shelf-based architecture. Also, P-3 Sensor Integration will expand software and hardware technology of P-3 systems to integrate additional sensor and processing capabilities, environmental prediction tools, tactical decision aides, color capabilities and communications to improve aircrew tactical proficiency and battlespace awareness.

Sensor Integration is a continuous effort to integrate and test newly evolving ASW and ASuW technologies such as Improved Extended Echo Ranging (IEER) and Multistatic Acoustic Coherent (MAC) family of Multi-Static active systems, ARCI, Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements. The Over the Horizon (OTH) Wideband system will provide the P-3C AIP aircraft the capability to conduct OTH Satellite communications which will allow the on-station aircraft to transmit real time sensitive acoustic intelligence data which will maximize enemy detections, tracking and engagement opportunities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: P-3 integration of ASW and ASuW sensors / weapon systems	1.238	-	-
Articles:	-	-	-
FY 2013 Accomplishments: Continued Sensor Integration effort to integrate and test newly evolving Anti-Submarine Warfare and ASuW technologies such as IEER and Multistatic Acoustic Coherent family of Multi-Static active systems, Air Acoustic Rapid Cots Insertion, Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements.			
<b>FY 2014 Plans:</b> N/A			
<b>FY 2015 Plans:</b> N/A			
Accomplishments/Planned Programs Subtotals	1.238	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
1319 / 5	PE 0604221N I P-3 Modernization Program	1152 <i>I P-</i> 3	Sensor Integration

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

			FY 2015	FY 2015	FY 2015					Cost To	
Line Item	FY 2013	FY 2014	<b>Base</b>	OCO	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	<b>Total Cost</b>
<ul> <li>APN/0538: P-3 Series</li> </ul>	114.475	36.788	2.823	-	2.823	7.121	4.032	3.100	3.206	-	4,921.898

#### Remarks

# D. Acquisition Strategy

The Air Deployable Active Receiver/Improved Extended Echo Ranging Operational Requirements Document (ORD) (Ser# 297(1)-05-97)) for 1152 was approved on 29 December 1997. The P-3 Anti-Surface Warfare Improvement Program ORD (Ser#355-88-94) for 2417 was approved on 30 March 1994. The Acquisition Plan (AIR-93-08A Rev 2) was approved on 30 March 1998. The Acquisition Strategy Review (AIR-ASR-26A Rev 3) was approved 29 Nov 1999 which includes Over the Horizon Wideband system.

#### E. Performance Metrics

Successfully complete Developmental Test.

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Exhibit R-2A, RDT&E Project Ju	stification:	PB 2015 N	lavy						Date: March 2014				
Appropriation/Budget Activity 1319 / 5							t (Number/ odernization	lumber/Name) igue Life Mgmt Program					
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO <sup>#</sup>	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
3016: Fatigue Life Mgmt Program	15.763	1.932	0.791	1.710	-	1.710	1.772	1.876	1.897	1.933	Continuing	Continuing	
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-			

<sup>\*</sup>The FY 2015 OCO Request will be submitted at a later date.

# A. Mission Description and Budget Item Justification

Fatigue Life Management Program is required to manage P-3/EP-3 inventory fatigue life and includes ongoing structural analysis, analyzing emergent structural issues, conducting engineering studies, assessing Fleet impact, and applying new technologies such as Non-Destructive Inspection techniques.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: P-3/EP-3 Fatigue Life Management	1.932	0.791	1.710
Articles:	-	-	-
FY 2013 Accomplishments: Fatigue Life Management Program: Managed P-3/EP-3 inventory fatigue life including conducting structural analysis, analyzing structural issues, conducting engineering studies, assessing Fleet impact. Research, test and apply new Fatigue Inspection techniques to the P-3/EP-3 Fleet.			
FY 2014 Plans: Fatigue Life Management Program: Manage P-3/EP-3 inventory fatigue life including conducting structural analysis, analyzing structural issues, conducting engineering studies, assessing Fleet impact. Research, test and apply new Fatigue Inspection techniques to the P-3/EP-3 Fleet.			
FY 2015 Plans: Fatigue Life Management Program: Manage P-3/EP-3 inventory fatigue life including conducting structural analysis, analyzing structural issues, conducting engineering studies, assessing Fleet impact. Research, test and apply new Fatigue Inspection techniques to the P-3/EP-3 Fleet.			
Accomplishments/Planned Programs Subtotals	1.932	0.791	1.710

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

			FY 2015	FY 2015	FY 2015					Cost To	
Line Item	FY 2013	FY 2014	Base	000	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	<b>Total Cost</b>
<ul> <li>APN/0538: P-3 Series</li> </ul>	114.475	36.788	2.823	-	2.823	7.121	4.032	3.100	3.206	-	4,921.898

Remarks

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: March 2014
11	, ,	,	umber/Name)
1319 / 5	PE 0604221N I P-3 Modernization Program	3016 <i>I Fati</i>	igue Life Mgmt Program

## D. Acquisition Strategy

The Fatigue Life Management Program leverages off of prior work done under P-3 Service Life Extension Program (2451). The Anti-Surface Warfare Improvement Program Operational Requirements Documents 355-88-94 was approved 30 March 94. Work will be performed by Lockheed Martin Aeronautical Systems and other industry participants along with the Naval Air Systems Command Structural Engineering Dept, AIR-4.3. This program supports the 7 June 2003 CNO approved P-3/EP-3 Sustainment Bridge to Multi-Mission Maritime Aircraft.

## **E. Performance Metrics**

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PE 0604221N: *P-3 Modernization Program* Navy

Exhibit R-4, RDT&E Schedule Prof	file:	PB 2	2015	Nav	'y																		D	ate:	Mar	ch 20	)14		
Appropriation/Budget Activity 1319 / 5																(Nu derr							( <b>Nun</b> atigu				Progr	am	
Fatigue Life Mgmt Program		FY 2013 FY 2014 FY 2015 FY 2016 FY 2017							FY 2018				FY 2019																
	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	
Acquisition Milestones																													
Milestones																													
Systems Development																													
Hardware Development																													
Software Development																													
Reviews																													
Test & Evaluation																													
Technical Evaluation										Inve	ntory	Fati	gue l	Life M	Mana	geme	ent/S	ustai	inme	nt								_	
Operational Evaluation																													
Production Milestones																													
Contract Awards																													
Deliveries																													

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