Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy

**Date:** February 2015

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

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

PE 0304270N I Electronic Warfare Development - MIP

Component Development & Prototypes (ACD&P)

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	3.466	0.153	0.332	0.580	-	0.580	0.465	0.465	0.477	0.486	Continuing	Continuing
2260: Specific Emitter ID	3.466	0.153	0.332	0.580	-	0.580	0.465	0.465	0.477	0.486	Continuing	Continuing

### A. Mission Description and Budget Item Justification

This project supports systems development and collection of Specific Emitter Identification (SEI) information from National Technical Means (NTM) to track commercial ships over 200 gross registered tons world-wide. Research and development will cover improvements and enhancements to Electronic Intelligence technology. This will include improved/next generation SEI technology for miniaturization and automation of hardware, national collection systems, signal processing and analysis, and deinterleaving of signals. Propagation in a multi-path signal environment will also be assessed. All work on this project will be undertaken in pursuit of goals stated by the Office of Naval Intelligence and the National Security Agency in support of the Worldwide Ship Tracking Program.

This PE is a Military Intelligence Program.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	0.153	0.332	0.575	-	0.575
Current President's Budget	0.153	0.332	0.580	-	0.580
Total Adjustments	-	-	0.005	-	0.005
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<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	-	-			
Rate/Misc Adjustments	-	-	0.005	-	0.005

# **Change Summary Explanation**

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Ju	stification:	PB 2016 N	lavy							Date: February 2015			
Appropriation/Budget Activity 1319 / 4					_	<b>am Elemen</b> 70N <i>I Electro</i> ent - MIP	•	,	Project (Number/Name) 2260 / Specific Emitter ID				
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	
2260: Specific Emitter ID	3.466	0.153	0.332	0.580	-	0.580	0.465	0.465	0.477	0.486	Continuing	Continuing	
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-			

## A. Mission Description and Budget Item Justification

This project supports systems development and collection of Specific Emitter Identification (SEI) information from National Technical Means (NTM) to track commercial ships over 200 gross registered tons world-wide. Research and development will cover improvements and enhancements to Electronic Intelligence technology. This will include improved/next generation SEI technology for miniaturization and automation of hardware, national collection systems, signal processing and analysis, and deinterleaving of signals. Propagation in a multi-path signal environment will also be assessed. All work on this project will be undertaken in pursuit of goals stated by the Office of Naval Intelligence and the National Security Agency in support of the Worldwide Ship Tracking Program.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2016	FY 2016	FY 2016
	FY 2014	FY 2015	Base	oco	Total
Title: SENSOR FUSION	0.048	0.100	0.187	-	0.187
Articles:	-	-	-	-	-
<b>Description:</b> This effort supports systems development and information fusion of improved SEI technology for automation of hardware, national collection systems, signal processing and analysis, and de-interleaving of signals.					
FY 2014 Accomplishments: - Continued task to fuse additional sources of data with SEI data for automation of hardware, national collection systems, signal processing and analysis, and de-interleaving of signals. Work toward increasing sensor fusion, collection and reporting automation helped reduce staffing and support remote access and control capability.					
FY 2015 Plans: - Continue all efforts of FY 2014.					
FY 2016 Base Plans: - Continue all efforts of FY 2015					
FY 2016 OCO Plans: N/A					
Title: SYSTEM AUTOMATION	0.052	0.132	0.201	-	0.201
Articles:	-	-	-	-	-

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nlichmente/Planned Programs (\$ in Millians, Article Quantities in Each)

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: Febr	uary 2015	
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/ PE 0304270N / Electronic Warfar Development - MIP	Project (N 2260 / Spe				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantit	ties in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<b>Description:</b> This effort supports development of an autonomous surveilla emitter signal information to a central location.	ance system capable of providing					
FY 2014 Accomplishments:  - Continued task to develop an unmanned, autonomous, remote collection  - Continued task to automate fusion of other sensor information with SEI of						
FY 2015 Plans: - Continue all efforts of FY 2014.						
FY 2016 Base Plans: - Continue all efforts of FY 2015.						
<b>FY 2016 OCO Plans:</b> N/A						
Title: TECHNOLOGY REFRESH & COMMUNICATION ENHANCEMENT	Articles:	0.053	0.100	0.192 -	-	0.192
<b>Description:</b> This effort improves SEI system performance, real-time comwhich will be expanded with next generation SEI technology.	nmunication and tactical use of SEI					
FY 2014 Accomplishments:  - Continued task to incorporate other SEI algorithms into deployed proces  - Continued task on integrating advanced SEI hardware with WinSEI softw performance and capabilities for tactical and technical use, and which can algorithms.  - Continued task to incorporate further message reporting formats for diss interoperability.  - Continued task to expand collection capability to support additional radar	vare to support improved SEI system be expanded with next generation SEI emination of SEI data and improve SEI					
FY 2015 Plans: - Continue all efforts of FY 2014.						
FY 2016 Base Plans: - Continue all efforts of FY 2015.						

PE 0304270N: Electronic Warfare Development - MIP

Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
1	,	- 3 (	umber/Name) cific Emitter ID

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<ul> <li>Complete task to incorporate further message reporting formats for dissemination of SEI data and improve SEI interoperability.</li> <li>Initiate task to provide software enhancements to improve SEI system performance based on mission needs and requirements, user inputs, and platform environment.</li> </ul>	11.2014	11 2010			Total
FY 2016 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.153	0.332	0.580	-	0.580

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

N/A

Remarks

# D. Acquisition Strategy

Not applicable.

# E. Performance Metrics

MIP Program.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

Project (Number/Name)

1319 / 4 PE 0304270N / Electronic Warfare

Development - MIP

2260 I Specific Emitter ID

FY 2016 FY 2016 FY 2016 **Product Development (\$ in Millions)** oco FY 2014 FY 2015 Base Total Contract Target Method Performing Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type **Activity & Location** Date Date Complete Contract Years Cost Cost Date Cost Cost Date Cost Cost Not Specified: Not NRL TBD 3.466 0.153 Jan 2014 0.332 Jan 2015 0.580 Jan 2016 0.580 Continuing Continuing Continuing Specified Subtotal 3.466 0.153 0.332 0.580 0.580

	Prior Years	FY 2	2014	FY	2015	FY 2	2016 Ise		2016 CO	FY 2016 Total	Cost To	Total Cost	Target Value of Contract
	rears	F14	2014	F1 4	2015	Da	se	0	JU	TOTAL	Complete	Cost	Contract
Project Cost Totals	3.466	0.153		0.332		0.580		-		0.580	-	-	-

Remarks

PE 0304270N: *Electronic Warfare Development - MIP* Navy

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Exhibit R-4, RDT&E Schedule Prof	file:	PB 2	2016	Naν	/y																		ſ	Date	: Fel	bruar	ry 20	15	
Appropriation/Budget Activity 1319 / 4											PE	Prog 0304 /elop	270	N/L	Electi	nt (N ronic	umb Wai	er/N rfare	lame	)	<b>Pro</b> 226	<b>oject</b> 60 / 3	(Nu Spec	mbe ific E	•r/Na ∃mitt	ame) ter ID	)		
Proj 2260		FY	2014	le .		FY:	2015			FY	2010	5		FY	2017	1		FY 2	2018	,		FY 2	2019			FY:	2020	5	
	1Q	2Q	3Q	40	1Q	2Q	3Q	4Q	1Q	2Q	30	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	
Demonstration									č																				
2016OSD - 0304270N - 2260																													

PE 0304270N: *Electronic Warfare Development - MIP* Navy

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0304270N / Electronic Warfare Development - MIP	, ,	umber/Name) ecific Emitter ID

# Schedule Details

	Sta	art	E	nd
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 2260				
Demonstration: Installatioon and Testing	1	2014	4	2016

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