Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy

**DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 

1319: Research, Development, Test & Evaluation, Navy

PE 0304270N: Electronic Warfare Development - MIP

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

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	0.641	0.625	0.643	-	0.643	0.658	0.666	0.677	0.690	Continuing	Continuing
2260: Specific Emitter ID	0.641	0.625	0.643	-	0.643	0.658	0.666	0.677	0.690	Continuing	Continuing

#### Note

New MIP PE formerly funded in 0604270N.

### A. Mission Description and Budget Item Justification

The efforts described in this Program Element (PE) are based on investment directions as defined in the Naval S&T Strategic Plan approved by the S&T Corporate Board (Sep 2011).

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 de-interleaving 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 effort was previously funded in PE 0604270N and is moved to this new PE 0304270N for FY11 onward. This PE is a Military Intelligence Program.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	0.663	0.625	0.645	-	0.645
Current President's Budget	0.641	0.625	0.643	-	0.643
Total Adjustments	-0.022	-	-0.002	-	-0.002
<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	-0.019	-			
<ul> <li>Program Adjustments</li> </ul>	-	-	-0.002	-	-0.002
<ul> <li>Congressional General Reductions</li> </ul>	-0.003	-	-	-	-
Adjustments					

PE 0304270N: Electronic Warfare Development - MIP

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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	
319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	PE 0304270N: Electronic Warfare Development - MIP	
Change Summary Explanation Technical: Not applicable.		
Schedule: Not applicable.		

PE 0304270N: Electronic Warfare Development - MIP

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy							ļ				
PPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE				PROJECT							
1319: Research, Development, Test & Evaluation, Navy PE 0304270N: Electronic Warfare Developm				evelopment	t 2260: Specific Emitter ID						
BA 4: Advanced Component Deve	lopment & Pro	ototypes (AC	D&P)	- MIP							
COST (¢ in Millions)			FY 2013	FY 2013	FY 2013					Cost To	
COST (\$ in Millions)	FY 2011	FY 2012	Base	oco	Total	FY 2014	FY 2015	FY 2016	FY 2017	Complete	Total Cost
2260: Specific Emitter ID	0.641	0.625	0.643	-	0.643	0.658	0.666	0.677	0.690	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

### 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 de-interleaving 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 2011	FY 2012	FY 2013
Title: SENSOR FUSION	0.192	0.189	0.200
Articles:	0	0	0
<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 2011 Accomplishments:			
(Transistioned from PE 0604270N/Specific Emitter ID)			
- 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 2012 Plans:			
- Continue all efforts of FY 2011.			
FY 2013 Plans:			
- Continue all efforts of FY 2012.			
Title: SYSTEM AUTOMATION	0.226	0.219	0.220
Articles:	0	0	0
<b>Description:</b> This effort supports development of an autonomous surveillance system capable of providing emitter signal information to a central location.			
FY 2011 Accomplishments:			

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0304270N: Electronic Warfare Development - MIP	<b>PROJEC</b> 2260: <i>Sp</i>		ID	
B. Accomplishments/Planned Programs (\$ in Millions, Article Qua	antities in Each)		FY 2011	FY 2012	FY 2013
(Transitioned from PE 0604270N/Specific Emitter ID) - Continued task to develop an unmanned, autonomous, remote collection Continued task to automate fusion of other sensor information with S					
FY 2012 Plans: - Continue all efforts of FY 2011.					
FY 2013 Plans: - Continue all efforts of FY 2012.					
Title: TECHNOLOGY REFRESH & COMMUNICATION ENHANCEM		Articles:	0.223 0	0.217 0	0.223 0
<b>Description:</b> This effort improves SEI system performance, real-time expanded with next generation SEI technology.	communication and tactical use of SEI which will be	<b>)</b>			
FY 2011 Accomplishments: (Transitioned from PE 0604270N/Specific Emitter ID) - Continued task to incorporate other SEI algorithms into deployed pro - Continued task on integrating advanced SEI hardware with WINSEI capabilities for tactical and technical use, and which can be expanded - Continued task to incorporate further message reporting formats for - Continued task to expand collection capability to support additional research.	software to support improved SEI system performar I with next generation SEI algorithms. dissemination of SEI data and improve SEI interope				
FY 2012 Plans: - Continue all efforts of FY 2011.					
FY 2013 Plans: - Continue all efforts of FY 2012					
	Accomplishments/Planned Programs S	Subtotals	0.641	0.625	0.643

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

N/A

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# D. Acquisition Strategy

Not applicable.

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0304270N: Electronic Warfare Development - MIP	PROJECT 2260: Specific Emitter ID
E. Performance Metrics  MIP Program.		

PE 0304270N: Electronic Warfare Development - MIP