Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy

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 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.663	0.000	0.663	0.666	0.687	0.703	0.716	Continuing	Continuing
2260: Specific Emitter ID	0.000	0.000	0.663	0.000	0.663	0.666	0.687	0.703	0.716	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 (Feb 2009).

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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy

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)

B. Program Change Summary (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	0.663	0.000	0.663
Total Adjustments	0.000	0.000	0.663	0.000	0.663
 Congressional General Reductions 		0.000			
 Congressional Directed Reductions 		0.000			
 Congressional Rescissions 	0.000	0.000			
 Congressional Adds 		0.000			
 Congressional Directed Transfers 		0.000			
 Reprogrammings 	0.000	0.000			
SBIR/STTR Transfer	0.000	0.000			
 Program Adjustments 	0.000	0.000	0.663	0.000	0.663

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0304270N: Electronic Warfare 2260: Specific Emitter ID

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

Development - MIP

Brt 4. Havanaca component bevelopment a Frototypes (rebail)			Bevelopment will								
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2260: Specific Emitter ID	0.000	0.000	0.663	0.000	0.663	0.666	0.687	0.703	0.716	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 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 Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
SENSOR FUSION	0.000	0.000	0.199	0.000	0.199
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 Base Plans: 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.					
SYSTEM AUTOMATION	0.000	0.000	0.234	0.000	0.234

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy **DATE:** February 2010 **PROJECT** APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE 1319: Research, Development, Test & Evaluation, Navy PE 0304270N: Electronic Warfare 2260: Specific Emitter ID BA 4: Advanced Component Development & Prototypes (ACD&P) Development - MIP B. Accomplishments/Planned Program (\$ in Millions) FY 2011 FY 2011 FY 2011 **FY 2009 FY 2010** Base OCO Total This effort supports development of an autonomous surveillance system capable of providing emitter signal information to a central location. FY 2011 Base Plans: (Transitioned from PE 0604270N/Specific Emitter ID) - Continued task to develop an unmanned, autonomous, remote collection and surveillance system. - Continued task to automate fusion of other sensor information with SEI data collection. TECHNOLOGY REFRESH & COMMUNICATION ENHANCEMENT 0.000 0.000 0.230 0.000 0.230 This effort improves SEI system performance, real-time communication and tactical use of SEI which will be expanded with next generation SEI technology. FY 2011 Base Plans: (Transitioned from PE 0604270N/Specific Emitter ID) - Continued task to incorporate other SEI algorithms into deployed processing software. - Continued task on integrating advanced SEI hardware with WINSEI software to support improved SEI system performance and capabilities for tactical and technical use, and which can be expanded with next generation SEI algorithms. - Continued task to incorporate further message reporting formats for dissemination of SEI data and improve SEI interoperability. - Continued task to expand collection capability to support additional radar types.

UNCLASSIFIED

Accomplishments/Planned Programs Subtotals

0.000

0.000

0.663

0.000

0.663

R-1 Line Item #80 Page 4 of 5

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy	DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT		
1319: Research, Development, Test & Evaluation, Navy	PE 0304270N: Electronic Warfare	ific Emitter ID		
BA 4: Advanced Component Development & Prototypes (ACD&P)	Development - MIP			

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

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

MIP Program.