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<b>Exhibit R-2, RDT&amp;E Budget Item Justification: FY 2018 Navy</b>	<b>Date: May 2017</b>
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<b>Appropriation/Budget Activity</b> 1319: Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)					<b>R-1 Program Element (Number/Name)</b> PE 0304270N / Electronic Warfare Development - MIP							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	3.951	0.580	0.437	0.527	-	0.527	0.519	0.527	0.539	0.549	Continuing	Continuing
2260: Specific Emitter ID	3.951	0.580	0.437	0.527	-	0.527	0.519	0.527	0.539	0.549	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 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 PE is a Military Intelligence Program.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	0.580	0.437	0.481	-	0.481
Current President's Budget	0.580	0.437	0.527	-	0.527
Total Adjustments	0.000	0.000	0.046	-	0.046
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	0.000	0.000	0.046	-	0.046

**Change Summary Explanation**

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0304270N / <i>Electronic Warfare Development - MIP</i>				Project (Number/Name) 2260 / <i>Specific Emitter ID</i>			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
2260: <i>Specific Emitter ID</i>	3.951	0.580	0.437	0.527	-	0.527	0.519	0.527	0.539	0.549	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 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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
<b>Title:</b> SENSOR FUSION  <b>Articles:</b>  <b>Description:</b> This effort supports systems development and information fusion of improved Specific Emitter Identification (SEI) technology for automation of hardware, national collection systems, signal processing and analysis, and de-interleaving of signals.  <b>FY 2016 Accomplishments:</b> - Continued task to fuse additional sources of data with Specific Emitter Identification (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.  <b>FY 2017 Plans:</b> - Continue all efforts of FY 2016, unless noted as completed above. - Initiate task to expand and improve ELectionic INTeelligence (ELINT) information that will aid SEI signal processing, analysis, and deinterleaving.  <b>FY 2018 Base Plans:</b> - Continue all efforts of FY 2017, unless noted as completed above.  <b>FY 2018 OCO Plans:</b>								0.187	0.135	0.145	0.000	0.145
								-	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
N/A						
<b>Title:</b> SYSTEM AUTOMATION		0.201	0.153	0.166	0.000	0.166
<b>Articles:</b>		-	-	-	-	-
<b>Description:</b> This effort supports development of an autonomous surveillance system capable of providing emitter signal information to a central location.						
<b>FY 2016 Accomplishments:</b> - Continued all task to develop an unmanned, autonomous, remote collection and surveillance system. - Continued task to automate fusion of other sensor information with Specific Emitter Identification (SEI) data collection.						
<b>FY 2017 Plans:</b> - Continue all efforts of FY 2016, unless noted as completed above. - Complete task to automate fusion of other sensor information with SEI data collection.						
<b>FY 2018 Base Plans:</b> - Continue all efforts of FY 2017, unless noted as completed above.						
<b>FY 2018 OCO Plans:</b> N/A						
<b>Title:</b> TECHNOLOGY REFRESH & COMMUNICATION ENHANCEMENT		0.192	0.149	0.216	0.000	0.216
<b>Articles:</b>		-	-	-	-	-
<b>Description:</b> This effort improves Specific Emitter Identification (SEI) system performance, real-time communication and tactical use of SEI which will be expanded with next generation SEI technology.						
The increase between FY17 and FY18 is due to planned SEI software enhancements to address mission needs and requirements.						
<b>FY 2016 Accomplishments:</b> - Continued task to incorporate other Specific Emitter Identification (SEI) algorithms into deployed processing software.						

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<ul style="list-style-type: none"> <li>- 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.</li> <li>- Continued task to expand collection capability to support additional radar types.</li> <li>- Completed task to incorporate further message reporting formats for dissemination of SEI data and improve SEI interoperability.</li> <li>- Initiated task to provide software enhancements to improve SEI system performance based on mission needs and requirements, user inputs, and platform environment.</li> </ul> <p><b>FY 2017 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue all efforts of FY 2016, unless noted as completed above.</li> </ul> <p><b>FY 2018 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue all efforts of FY 2017, unless noted as completed above.</li> </ul> <p><b>FY 2018 OCO Plans:</b></p> <p>N/A</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	0.580	0.437	0.527	0.000	0.527
<b>C. Other Program Funding Summary (\$ in Millions)</b>					
N/A					
<b>Remarks</b>					
<b>D. Acquisition Strategy</b>					
Not applicable.					
<b>E. Performance Metrics</b>					
MIP Program.					