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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2019 Navy	<b>Date:</b> February 2018
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<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>					<b>R-1 Program Element (Number/Name)</b> PE 0304270N / <i>Electronic Warfare Development - MIP</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	4.531	0.437	0.527	0.466	-	0.466	0.552	0.569	0.571	0.598	Continuing	Continuing
2260: <i>Specific Emitter ID</i>	4.531	0.437	0.527	0.466	-	0.466	0.552	0.569	0.571	0.598	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 (MIP).

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2017</u></b>	<b><u>FY 2018</u></b>	<b><u>FY 2019 Base</u></b>	<b><u>FY 2019 OCO</u></b>	<b><u>FY 2019 Total</u></b>
Previous President's Budget	0.437	0.527	0.519	-	0.519
Current President's Budget	0.437	0.527	0.466	-	0.466
Total Adjustments	0.000	0.000	-0.053	-	-0.053
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	0.000	0.000	-0.053	-	-0.053

**Change Summary Explanation**

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
2260: <i>Specific Emitter ID</i>	4.531	0.437	0.527	0.466	-	0.466	0.552	0.569	0.571	0.598	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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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 2018 Plans:</b> - Continue 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 2019 Base Plans:</b> This subarea develops Specific Emitter Identification (SEI) technology for automation of hardware, national collection systems, signal processing and analysis, and de-interleaving of signals.  <b>FY 2019 OCO Plans:</b> N/A  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> N/A								0.135	0.145	0.130	0.000	0.130
								-	-	-	-	-
<b>Title:</b> SYSTEM AUTOMATION								0.153	0.166	0.149	0.000	0.149

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Articles:  <b>Description:</b> This effort supports development of an autonomous surveillance system capable of providing emitter signal information to a central location.  <b>FY 2018 Plans:</b> -Continue all task to develop an unmanned, autonomous, remote collection and surveillance system. -Continue task to automate fusion of other sensor information with Specific Emitter Identification (SEI) data collection.  <b>FY 2019 Base Plans:</b> This subarea develops an autonomous surveillance system that provides emitter signal information to a central location.  <b>FY 2019 OCO Plans:</b> N/A  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> N/A		-	-	-	-	-
Title: TECHNOLOGY REFRESH & COMMUNICATION ENHANCEMENT  Articles:  <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.  <b>FY 2018 Plans:</b> -Continue task to incorporate other Specific Emitter Identification (SEI) algorithms into deployed processing software. -Continue 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. -Continue task to expand collection capability to support additional radar types. -Continue task to provide software enhancements to improve SEI system performance based on mission needs and requirements, user inputs, and platform environment.  <b>FY 2019 Base Plans:</b>		0.149 -	0.216 -	0.187 -	0.000 -	0.187 -

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>						
		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
This subarea improves Specific Emitter Identification (SEI) system performance, real-time communication and tactical use of SEI.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: N/A						
Accomplishments/Planned Programs Subtotals		0.437	0.527	0.466	0.000	0.466
<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.						

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2019 Navy</b>												<b>Date:</b> February 2018		
<b>Appropriation/Budget Activity</b> 1319 / 4						<b>R-1 Program Element (Number/Name)</b> PE 0304270N / <i>Electronic Warfare Development - MIP</i>				<b>Project (Number/Name)</b> 2260 / <i>Specific Emitter ID</i>				

  

<b>Product Development (\$ in Millions)</b>				<b>FY 2017</b>		<b>FY 2018</b>		<b>FY 2019 Base</b>		<b>FY 2019 OCO</b>		<b>FY 2019 Total</b>				
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
NRL	TBD	Not Specified : Not Specified	4.531	0.437	Jan 2017	0.527	Jan 2018	0.466	Jan 2019	-		0.466	Continuing	Continuing	Continuing	
<b>Subtotal</b>			4.531	0.437		0.527		0.466		-		0.466	Continuing	Continuing	N/A	

  

	<b>Prior Years</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	4.531	0.437	0.527	0.466	-	0.466	Continuing	Continuing	N/A

  

**Remarks**

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy			Date: February 2018		
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>

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Proj 2260																												
Demonstration: Installation and Testing																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0304270N / <i>Electronic Warfare Development - MIP</i>	<b>Project (Number/Name)</b> 2260 / <i>Specific Emitter ID</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Proj 2260</i></b>				
Demonstration: Installation and Testing	1	2019	4	2020