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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0708730N / Maritime Tech (MARITECH)
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	13.162	4.187	4.321	3.204	-	3.204	4.861	4.808	4.191	4.638	Continuing	Continuing
2466: NSRP ASE	13.162	4.187	4.321	3.204	-	3.204	4.861	4.808	4.191	4.638	Continuing	Continuing

A. Mission Description and Budget Item Justification

The National Shipbuilding Research Program (NSRP) is an industry and enterprise wide research collaboration that seeks to reduce the Navy's shipbuilding and repair cost. The resulting technologies implemented in NSRP-ASE member shipyards, benefit both the shipyard and the US Navy.

B. Program Change Summary (\$ in Millions)

	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>
Previous President's Budget	4.347	4.321	4.361	-	4.361
Current President's Budget	4.187	4.321	3.204	-	3.204
Total Adjustments	-0.160	0.000	-1.157	-	-1.157
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.160	0.000			
• Program Adjustments	0.000	0.000	-1.067	-	-1.067
• Rate/Misc Adjustments	0.000	0.000	-0.090	-	-0.090

Change Summary Explanation

The FY 2015 funding request includes a reduction of 0.160 million to account for SBIR transfers.

The FY 2017 funding request includes reductions of \$0.929 million to account for prior year available balances, \$0.138 million for the Department of the Navy to comply with the Bipartisan Budget Act of 2015, and \$0.090 million for other miscellaneous adjustments.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0708730N / <i>Maritime Tech (MARITECH)</i>				Project (Number/Name) 2466 / <i>NSRP ASE</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2466: <i>NSRP ASE</i>	13.162	4.187	4.321	3.204	-	3.204	4.861	4.808	4.191	4.638	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

NSRP ASE is a collaboration of U.S. shipyards working with the Navy customer to reduce the cost of building and repairing naval ships and improving shipbuilding industry productivity through advanced technology and processes. NSRP ASE is an innovative and proven approach to public/private cooperation to manage cost-shared R&D based on a national consensus Strategic Investment Plan. The Plan targets potential industry-wide technology and process solutions which are vetted by industry experts and builds upon the progress made over the previous years. The collaboration's organizational structure promotes teaming of industry, government and academia to achieve the continuous product and process improvements necessary for improved Navy ship affordability. Solutions include both leverage of best commercial practices and creation of industry-wide initiatives with aggressive technology transfer to, and buy-in by, multiple U.S. shipyards. Navy PEOs (Ships, Subs and Carriers) and NAVSEA are directly involved in NSRP. The Plan calls for matching government and industry investments over several years.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Technology Development Projects	4.187	4.321	3.204	0.000	3.204
Articles:	-	-	-	-	-
Description: The NSRP is an ongoing Research and Development program. This program awards small research projects and large research projects to (1) Improve Quality; (2) Reduce Total Ownership Costs; and, (3) Increase Energy Efficiency. These research projects have been known to produce technological advances in shipbuilding that once implemented have resulted in savings for the Navy.					
FY 2015 Accomplishments: (1) Completed technology development projects in the four major initiative areas (Ship Design and Material Technologies, Ship Production Technologies, Business Process and Information Systems, and Infrastructure and Support (Regulatory Compliance, Technology Transfer and Workforce Development) that were competitively selected by industry subject matter experts and Navy stakeholders during Government Fiscal Year (GFY14). The projects targeted the following priorities in Naval shipbuilding and repair: (1)Improving Quality; (2) Reduction of Total Ownership Costs; and, (3) Increasing Energy Efficiency. It is					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>anticipated that projects currently in process will continue to be focused in the following areas:</p> <ul style="list-style-type: none"> - Promotion of Modular Construction - Reduction of Re-work - Improving Production Engineering - Improving Specifications and Standards - Improving Manufacturing Processes - Improving Production Planning - Data Exchange - Improving Safety & Health / Reducing Environmental Impacts - Education and Training - Total Ownership Cost <p>(2) Continue technology transfer among the Navy, shipbuilding industry, academia, equipment and material suppliers and the R&D community.</p> <p>FY 2016 Plans:</p> <p>(1) Complete technology development projects in the four major initiative areas (Ship Design and Material Technologies, Ship Production Technologies, Business Process and Information Systems, and Infrastructure and Support (Regulatory Compliance, Technology Transfer and Workforce Development)) that will be competitively selected by industry subject matter experts and Navy stakeholders during GFY15, targeting the following priorities in Naval shipbuilding and repair:</p> <p>(1) Improving Quality; (2) Reduction of Total Ownership Costs; and, (3) Increasing Energy Efficiency. It is anticipated that projects selected will continue to be focused in the following areas:</p> <ul style="list-style-type: none"> - Promotion of Modular Construction - Reduction of Re-work - Improving Production Engineering - Improving Specifications and Standards - Improving Manufacturing Processes - Improving Production Planning - Data Exchange - Improving Safety & Health / Reducing Environmental Impacts - Education and Training - Total Ownership Cost 					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>(2) Continue technology transfer among the Navy, shipbuilding industry, academia, equipment and material suppliers and the R&D community</p> <p><i>FY 2017 Base Plans:</i> (1) Complete technology development projects in the four major initiative areas (Ship Design and Material Technologies, Ship Production Technologies, Business Process and Information Systems, and Infrastructure and Support (Regulatory Compliance, Technology Transfer and Workforce Development)) that will be competitively selected by industry subject matter experts and Navy stakeholders during GFY16, targeting the following priorities in Naval shipbuilding and repair: (1) Improving Quality; (2) Reduction of Total Ownership Costs; and, (3) Increasing Energy Efficiency. It is anticipated that projects selected will continue to be focused in the following areas: - Promotion of Modular Construction - Reduction of Re-work - Improving Production Engineering - Improving Specifications and Standards - Improving Manufacturing Processes - Improving Production Planning - Data Exchange - Improving Safety & Health / Reducing Environmental Impacts - Education and Training - Total Ownership Cost</p> <p>(2) Continue technology transfer among the Navy, shipbuilding industry, academia, equipment and material suppliers and the R&D community</p> <p><i>FY 2017 OCO Plans:</i> N/A</p>					
Accomplishments/Planned Programs Subtotals	4.187	4.321	3.204	0.000	3.204

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

Remarks

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D. Acquisition Strategy

R&D projects have been solicited and awarded by an industry collaboration represented by the Executive Control Board (ECB) of the National Shipbuilding Research Program (NSRP). The Navy has entered into an agreement with the industry collaboration using "other transaction" authority pursuant to 10 U.S.C. 2371.

E. Performance Metrics

Quarterly reports and reviews

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy **Date:** February 2016

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Proj 2466	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Ship Collaborative Framework Technologies																												
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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy **Date:** February 2016

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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 2466</i>				
Ship Collaborative Framework Technologies	1	2015	4	2021