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**Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy** **DATE:** April 2013

<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604279N: <i>(U)ASE Self Protection Optimization</i>
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COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO <sup>##</sup>	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	10.864	0.676	0.711	0.169	-	0.169	0.706	0.635	0.531	0.530	Continuing	Continuing
3308: <i>Technology Development</i>	0.000	0.461	0.474	0.080	-	0.080	0.384	0.344	0.281	0.283	Continuing	Continuing
3309: <i>Assault Survivability Optimization</i>	10.864	0.215	0.237	0.089	-	0.089	0.322	0.291	0.250	0.247	Continuing	Continuing

<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

This element includes development of Aircraft Survivability equipment and Electronic Warfare/Countermeasures solutions for the United States Navy, United States Marine Corps and Coalition Aircraft to include studies and evaluations of current and future aircraft threats, Modeling and Simulation for improved countermeasure capabilities, and development and testing to address new and emerging threats.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES because it includes all efforts necessary to evaluate integrated technologies, representative models or prototype systems in a high fidelity and realistic operating environment.

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2012</u></b>	<b><u>FY 2013</u></b>	<b><u>FY 2014 Base</u></b>	<b><u>FY 2014 OCO</u></b>	<b><u>FY 2014 Total</u></b>
Previous President's Budget	0.697	0.711	0.426	-	0.426
Current President's Budget	0.676	0.711	0.169	-	0.169
Total Adjustments	-0.021	0.000	-0.257	-	-0.257
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.005	0.000			
• SBIR/STTR Transfer	-0.016	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.257	-	-0.257

**Change Summary Explanation**

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)					<b>R-1 ITEM NOMENCLATURE</b> PE 0604279N: (U)ASE Self Protection Optimization				<b>PROJECT</b> 3308: Technology Development			
<b>COST (\$ in Millions)</b>	<b>All Prior Years</b>	<b>FY 2012</b>	<b>FY 2013<sup>#</sup></b>	<b>FY 2014 Base</b>	<b>FY 2014 OCO <sup>##</sup></b>	<b>FY 2014 Total</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3308: Technology Development	0.000	0.461	0.474	0.080	-	0.080	0.384	0.344	0.281	0.283	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012 <sup>##</sup> The FY 2014 OCO Request will be submitted at a later date												
<b>A. Mission Description and Budget Item Justification</b> Project Unit 3308 Technology Development: Funds efforts that focus on the quick reaction prototyping of tactical Electronic Warfare (EW)/Countermeasures solutions for increased survivability providing friendly forces the self protection necessary for successful mission accomplishment. This program directly addresses the operational requirement of multiple airborne platforms (Strike and Assault) for optimization of EW/Countermeasure solutions across the Department of the Navy. Improved countermeasure capabilities and techniques through Modeling and Simulation, validated in subsequent field testing to address new and emerging threats, capitalize upon upgrades to Aircraft Survivability Equipment systems capabilities for Strike and Assault platforms and evaluate new Radio Frequency Countermeasure & Infra Red Countermeasure technologies.												
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>										<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
<b>Title:</b> Technology Development  <b>FY 2012 Accomplishments:</b> Begin studies and vulnerability analysis for EW programs.  <b>FY 2013 Plans:</b> Continue studies and vulnerability analysis for EW programs.  <b>FY 2014 Plans:</b> Continue studies and vulnerability analysis for EW Programs.										<b>Articles:</b> 0.461 0	0.474 0	0.080 0
<b>Accomplishments/Planned Programs Subtotals</b>										0.461	0.474	0.080
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A												
<b>Remarks</b>												
<b>D. Acquisition Strategy</b> EW studies and vulnerability analyses will be conducted on strike and assault aircraft across the FYDP.												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	R-1 ITEM NOMENCLATURE PE 0604279N: <i>(U)ASE Self Protection Optimization</i>	PROJECT 3308: <i>Technology Development</i>

E. Performance Metrics

Continuation of studies and analyses efforts related to strike and assault aircraft platforms across FYDP.

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2014 Navy</b>												<b>DATE:</b> April 2013			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)						<b>R-1 ITEM NOMENCLATURE</b> PE 0604279N: (U)ASE Self Protection Optimization						<b>PROJECT</b> 3308: Technology Development			
<b>Product Development (\$ in Millions)</b>				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All 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>
Product Analysis	C/CPFF	GTRI:Atlanta, GA	0.000	0.000		0.300	Mar 2013	0.000		-		0.000	0.000	0.300	
<b>Subtotal</b>			0.000	0.000		0.300		0.000		0.000		0.000	0.000	0.300	
<b>Support (\$ in Millions)</b>				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All 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>
Software Dev-ALQ-214 SW Dev	WR	Various:Various	0.000	0.000		0.174	Apr 2013	0.080	Dec 2013	-		0.080	0.000	0.254	
<b>Subtotal</b>			0.000	0.000		0.174		0.080		0.000		0.080	0.000	0.254	
<b>Test and Evaluation (\$ in Millions)</b>				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All 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>
Developmental T&E	WR	Various:Various	0.000	0.461	Jun 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	0.461		0.000		0.000		0.000		0.000			
<b>Project Cost Totals</b>			0.000	0.461		0.474		0.080		0.000		0.080			
<b>Remarks</b>															

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2014 Navy										<b>DATE:</b> April 2013		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>					<b>R-1 ITEM NOMENCLATURE</b> PE 0604279N: <i>(U)ASE Self Protection Optimization</i>				<b>PROJECT</b> 3309: <i>Assault Survivability Optimization</i>			
<b>COST (\$ in Millions)</b>	<b>All Prior Years</b>	<b>FY 2012</b>	<b>FY 2013<sup>#</sup></b>	<b>FY 2014 Base</b>	<b>FY 2014 OCO <sup>##</sup></b>	<b>FY 2014 Total</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3309: <i>Assault Survivability Optimization</i>	10.864	0.215	0.237	0.089	-	0.089	0.322	0.291	0.250	0.247	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012 <sup>##</sup> The FY 2014 OCO Request will be submitted at a later date												
<b>A. Mission Description and Budget Item Justification</b> This project funds helicopter survivability evaluations of advanced Aircraft Survivability equipment for USMC, Navy, and Coalition Aircraft. The Missile Warning System (MWS), Laser Warning System (LWS), and Radar Warning Receiver (RWR) require periodic effectiveness and sustainability upgrades. Resources will be applied to the following areas:  1. Studies and Evaluations of current and future MWS/LWS/RWR Rotary aircraft threats. 2. MWS/LWS/RWR modeling techniques to support future hardware/software upgrades. 3. Evaluation of science and technology development programs in PMA-272 for transition into programs of record. 4. Evaluate sustainability enhancements as platforms migrate to Advanced Displays and Controls.												
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>									<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	
<b>Title:</b> Studies & Analysis  <div style="text-align: right;"><b>Articles:</b></div>									0.215	0.237	0.089	
									0	0	0	
<b>FY 2012 Accomplishments:</b> Begin studies and analysis for assault aircraft programs.												
<b>FY 2013 Plans:</b> Continue studies and analysis for assault aircraft programs.												
<b>FY 2014 Plans:</b> Continue studies and analysis for assault aircraft programs.												
<b>Accomplishments/Planned Programs Subtotals</b>									0.215	0.237	0.089	
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A												
<b>Remarks</b>												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604279N: <i>(U)ASE Self Protection Optimization</i>	<b>PROJECT</b> 3309: <i>Assault Survivability Optimization</i>
<b>D. Acquisition Strategy</b> Continuation of Missile Warning System/Laser Warning System/Radar Warning Receiver Rotary and assault aircraft threat analysis will be conducted across the FYDP. The contractor and contract type will be determined as requirements evolve.		
<b>E. Performance Metrics</b> Continuation of studies and analyses efforts related to assault aircraft platforms across FYDP.		

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2014 Navy</b>												<b>DATE:</b> April 2013			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)						<b>R-1 ITEM NOMENCLATURE</b> PE 0604279N: (U)ASE Self Protection Optimization						<b>PROJECT</b> 3309: Assault Survivability Optimization			
<b>Product Development (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All 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>
Modeling & Simulation	Various	Various:Various	5.601	0.000		0.150	Apr 2013	0.089	Nov 2013	-		0.089	Continuing	Continuing	Continuing
<b>Subtotal</b>			5.601	0.000		0.150		0.089		0.000		0.089			
<b>Support (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All 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>
Software Development	C/CPIF	ATK:Clearwater, FL	2.610	0.000		0.000		0.000		-		0.000	0.000	2.610	2.610
Software Dev-Government	WR	Various:Various	0.585	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
<b>Subtotal</b>			3.195	0.000		0.000		0.000		0.000		0.000			
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All 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>
Engineering & Evaluation	Various	Various:Various	0.593	0.215	Nov 2012	0.087	Apr 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Test Assets	Various	Various:Various	1.475	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental T&E	WR	Various:Various	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
<b>Subtotal</b>			2.068	0.215		0.087		0.000		0.000		0.000			
			<b>All Prior Years</b>	<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			10.864	0.215		0.237		0.089		0.000		0.089			
<b>Remarks</b>															