

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Navy	<b>DATE:</b> April 2013
---	-------------------------

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>					PE 0603795N: <i>Land Attack Tech</i>							
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	0.000	0.411	16.132	5.075	-	5.075	2.046	0.000	0.000	0.000	0.000	23.664
2038: <i>ADVANCED MINOR CALIBER GUN</i>	0.000	0.000	16.132	5.075	-	5.075	2.046	0.000	0.000	0.000	0.000	23.253
2325: <i>Naval Fires Control System</i>	0.000	0.411	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.411

<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**

The Naval Fires Control System (NFCS) (Project 2325) - Automates shipboard land attack battle management duties to be interoperable and consistent with joint C4ISR systems. This shipboard system will significantly improve the Navy's ability to support Operational Maneuver from the Sea (OMFTS).

The Advanced Minor Caliber Gun (Project 2038) will support non-recurring engineering, component integration, and testing efforts required for the Task Force Defense (TFD) capability upgrade to the MK38 Mod 2, a minor caliber gun weapon system.

<b>B. Program Change Summary (\$ 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>
Previous President's Budget	0.421	16.132	5.077	-	5.077
Current President's Budget	0.411	16.132	5.075	-	5.075
Total Adjustments	-0.010	0.000	-0.002	-	-0.002
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.010	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.002	-	-0.002

# UNCLASSIFIED

<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 0603795N: <i>Land Attack Tech</i>				<b>PROJECT</b> 2038: <i>ADVANCED MINOR CALIBER GUN</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>
2038: <i>ADVANCED MINOR CALIBER GUN</i>	0.000	0.000	16.132	5.075	-	5.075	2.046	0.000	0.000	0.000	0.000	23.253
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>												
<p>The Advanced Minor Caliber Gun project will support non-recurring engineering, component integration, testing and qualification efforts required for the Task Force Defense (TFD) capability upgrade to the MK38 Mod 2, a minor caliber gun weapon system. TFD creates a near term improvement to address ship based, close range solutions for FIFTH Fleet Counter- Swarm. The MK38 Mod 2 was developed in FY04 under Chief of Naval Operations (CNO) direction to outfit near term deployers to counter small boat threats.</p>												
<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> Systems Engineering and Testing  <b>FY 2013 Plans:</b> Funding will purchase commercially available Non-Developmental Items (NDI) hardware and test units; provide systems engineering, integration engineering, software updates, on-mount testing, safety and technical oversight support for the MK38 Task Force Defense (TFD) capability upgrade development. Will fund USN qualification effort of the MK 38 TFD kit and fund the development of the COAX interface Technical Data Package (TDP) for future competition.  <b>FY 2014 Plans:</b> Continues the MK38 TFD capability upgrade development. Funds at-sea testing efforts, and the development of the Loud Hailer interface TDP for future competition.										<b>Articles:</b> 0.000	16.132 0	5.075 0
<b>Accomplishments/Planned Programs Subtotals</b>										0.000	16.132	5.075
<b>C. Other Program Funding Summary (\$ in Millions)</b>												
N/A												
<b>Remarks</b>												

UNCLASSIFIED

<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 0603795N: <i>Land Attack Tech</i>	<b>PROJECT</b> 2038: <i>ADVANCED MINOR CALIBER GUN</i>
<b>D. Acquisition Strategy</b> The acquisition strategy for the Task Force Defense (TFD) capability will support MK38 Mod 2 OEM engineering services required to meet the performance requirements of TFD.		
<b>E. Performance Metrics</b> Quarterly Program Reviews and semi-annual Product Certification Panel Reviews.		

**UNCLASSIFIED**

<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 0603795N: Land Attack Tech						<b>PROJECT</b> 2038: ADVANCED MINOR CALIBER GUN			
<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>
Primary Product Integration	SS/BOA	BAE Systems:Minneapolis MN	0.000	0.000		13.775	Jan 2013	3.468	Dec 2013	-		3.468	0.000	17.243	
<b>Subtotal</b>			0.000	0.000		13.775		3.468		0.000		3.468	0.000	17.243	
<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>
Government Engineering Services	WR	NSWC, DD:Dahlgren, VA	0.000	0.000		1.796	Dec 2012	1.077	Dec 2013	-		1.077	0.000	2.873	
Government Engineering Services	WR	NSWC, IHD:Indian Head, MD	0.000	0.000		0.311	Dec 2012	0.355	Dec 2013	-		0.355	0.000	0.666	
<b>Subtotal</b>			0.000	0.000		2.107		1.432		0.000		1.432	0.000	3.539	
<b>Management Services (\$ 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>
Program Support Services	C/CPFF	ALION:Washington, DC	0.000	0.000		0.250	Jan 2013	0.175	Jan 2014	-		0.175	0.000	0.425	
<b>Subtotal</b>			0.000	0.000		0.250		0.175		0.000		0.175	0.000	0.425	
			<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>			0.000	0.000		16.132		5.075		0.000		5.075	0.000	21.207	
<b>Remarks</b>															

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy**

**DATE:** April 2013

**APPROPRIATION/BUDGET ACTIVITY**

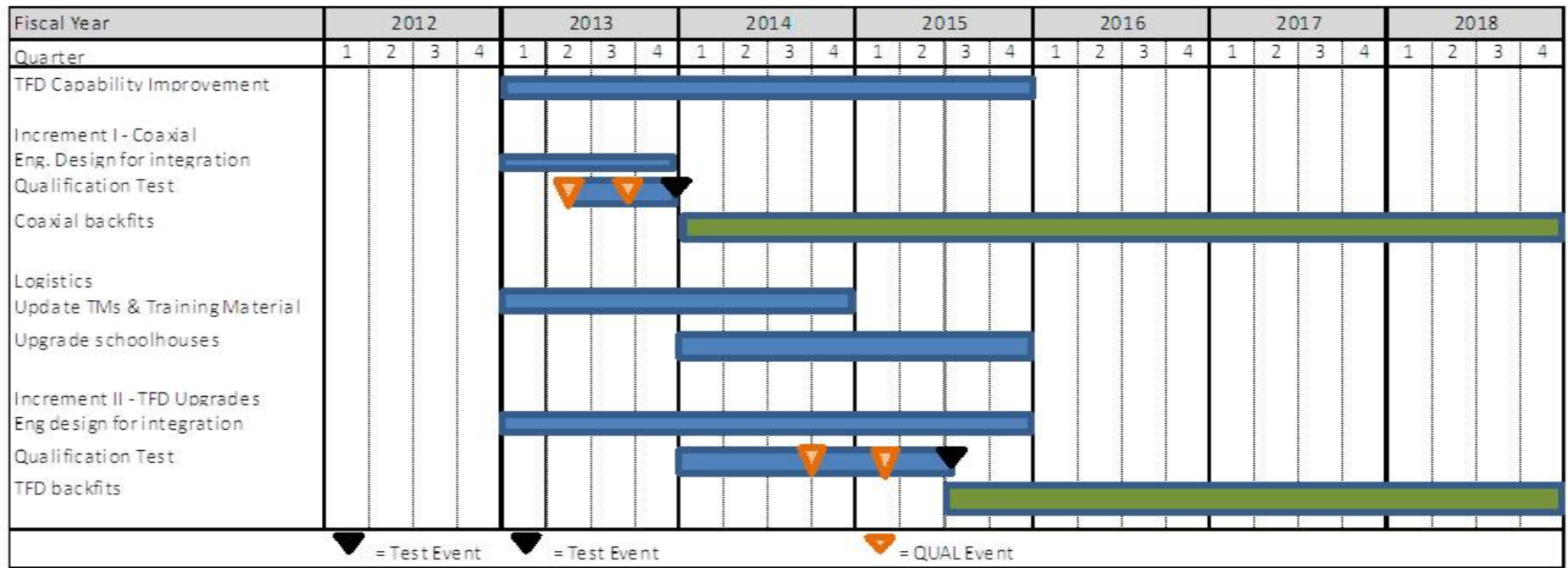
1319: *Research, Development, Test & Evaluation, Navy*  
BA 4: *Advanced Component Development & Prototypes (ACD&P)*

**R-1 ITEM NOMENCLATURE**

PE 0603795N: *Land Attack Tech*

**PROJECT**

2038: *ADVANCED MINOR CALIBER GUN*



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</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 0603795N: <i>Land Attack Tech</i>	<b>PROJECT</b> 2038: <i>ADVANCED MINOR CALIBER GUN</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Proj 2038</i></b>				
TFD Capability Improvement	1	2013	4	2015
Increment I - Coaxial Eng. Design for integration	1	2013	4	2013
Increment I Qualification Test	2	2013	4	2013
Coaxial backfits	1	2014	4	2018
Logistics Update TMs & Training Material	1	2013	4	2014
Upgrade schoolhouses	1	2014	4	2015
Increment II - TFD Upgrades Eng design for integration	1	2013	4	2015
Increment II Qualification Test	1	2014	3	2015
TFD backfits	3	2015	4	2018

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603795N: Land Attack Tech				PROJECT 2325: Naval Fires Control System			
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
2325: Naval Fires Control System	0.000	0.411	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.411
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
Naval Fires Control System (NFCS) covers the mission planning and coordination for current and future Naval Surface Fire Support system requirements. NFCS plans, coordinates and manages the firing of Naval Surface Fires Support (NSFS) weapon systems including the 5"/62 caliber gun and Conventional Munitions. The NFCS phase I is interfacing with the Advanced TOMAHAWK Weapons Control Systems (ATWCS) and the Tactical TOMAHAWK Weapons Control Systems (TTWCS) in order for NFCS to share the Advanced Tactical Display Console (ATDC) with ATWCS and TTWCS. Funding provides software and system engineering analysis and development, reuse and integration of government and commercial computer programs to support extended range munitions and other naval weapon applications. The NFCS Phase I requirements have been completed.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
Title: Software/System Engineering  Articles:  FY 2012 Accomplishments: Funding provided software and system engineering analysis and development. Reuse and integration of government and commercial computer programs to support extended range munitions and other naval weapon applications.										0.286 0	0.000	0.000
Title: Technical Design Agent  Articles:  FY 2012 Accomplishments: Funding provided Technical Design Agent (TDA) support, joint requirements investigation and Concept of Operations (CONOPs) scenario development.										0.050 0	0.000	0.000
Title: C4I Systems  Articles:  FY 2012 Accomplishments:										0.075 0	0.000	0.000

**UNCLASSIFIED**

<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 0603795N: <i>Land Attack Tech</i>			<b>PROJECT</b> 2325: <i>Naval Fires Control System</i>			

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>				<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
Funding provided continued support for C4I and combat system interface investigation and analysis in relation to developing C4I systems and technologies.						
<b>Accomplishments/Planned Programs Subtotals</b>				0.411	0.000	0.000

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

<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 5112: <i>OPN</i>	2.044	3.472	1.188		1.188	1.188	0.896	0.934	0.945	0.000	13.134
<b>Remarks</b>											

**D. Acquisition Strategy**

A sole source contract was awarded to GDIS for Phase 1 software development. NSWC/DD took over this function from GDIS and will remain the software developer. The original hardware manufacturer and developer is NUWC, Keyport.

**E. Performance Metrics**

Quarterly Program Reviews and semi-annual Product Certification Panel Reviews.



**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</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 0603795N: <i>Land Attack Tech</i>				<b>PROJECT</b> 2325: <i>Naval Fires Control System</i>				

<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/System Engineering	WR	Not Specified:Not Specified	0.000	0.286	Jan 2012	0.000		0.000		-		0.000	0.000	0.286	
Technical Design Agent	WR	Not Specified:Not Specified	0.000	0.050	Jan 2012	0.000		0.000		-		0.000	0.000	0.050	
C4I System	WR	Not Specified:Not Specified	0.000	0.075	Aug 2012	0.000		0.000		-		0.000	0.000	0.075	
<b>Subtotal</b>			0.000	0.411		0.000		0.000		0.000		0.000	0.000	0.411	

	<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>	0.000	0.411	0.000	0.000	0.000	0.000	0.000	0.411	

**Remarks**