Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy

**DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0603795N: Land Attack Tech

BA 4: Advanced Component Development & Prototypes (ACD&P)

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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	0.899	0.421	16.132	-	16.132	5.077	2.046	-	-	0.000	24.575
2038: ADVANCED MINOR CALIBER GUN	-	-	16.132	-	16.132	5.077	2.046	-	-	0.000	23.255
2325: Naval Fires Control System	0.899	0.421	-	-	-	-	-	-	-	0.000	1.320

#### 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.

FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
0.905	0.421	0.427	-	0.427
0.899	0.421	16.132	-	16.132
-0.006	_	15.705	-	15.705
-	-			
-	-			
-	-			
-	-			
-	-			
-	-			
-0.001	-			
-	-	15.705	=	15.705
-	-	-	=	-
-0.005	-	-	-	-
	0.905 0.899 -0.006 - - - - - - - -0.001	0.905	0.905	0.905       0.421       0.427       -         0.899       0.421       16.132       -         -0.006       -       15.705       -         -       -       -       -

# **Change Summary Explanation**

Technical: Funding added supports 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.

Schedule: Not applicable.

PE 0603795N: Land Attack Tech

UNCLASSIFIED
Page 1 of 5

R-1 Line #71

Navy

**DATE:** February 2012 Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy

APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 

1319: Research, Development, Test & Evaluation, Navy PE 0603795N: Land Attack Tech 2038: ADVANCED MINOR CALIBER GUN BA 4: Advanced Component Development & Prototypes (ACD&P)

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2038: ADVANCED MINOR CALIBER GUN	-	-	16.132	-	16.132	5.077	2.046	-	-	0.000	23.255
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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

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.

#### B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) FY 2011 FY 2012 FY 2013 **Title:** Systems Engineering and Testing 16.132 Articles: FY 2013 Plans: 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. **Accomplishments/Planned Programs Subtotals** 16.132

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

			FY 2013	FY 2013	FY 2013	<u>C</u>				Cost To	
Line Item	FY 2011	FY 2012	<b>Base</b>	<u>000</u>	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	<b>Complete</b>	<b>Total Cost</b>
• WPN/4217: GUN MOUNT MODS	0.000	0.000	20.900	0.000	20.900	33.500	45.800	45.400	45.200	0.000	190.800

# D. Acquisition Strategy

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.

#### E. Performance Metrics

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

PE 0603795N: Land Attack Tech

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy

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

**DATE:** February 2012

PROJECT

2038: ADVANCED MINOR CALIBER GUN

Product Development (	oduct Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Product Integration	SS/BOA	BAE Systems:Minneapolis MN	-	-		9.740	Dec 2012	-		9.740	0.000	9.740	
	Subtotal -					9.740		-		9.740	0.000	9.740	

Support (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Services	WR	NSWC, DD:Dahlgren, VA	-	-		4.032	Dec 2012	-		4.032	0.000	4.032	
Government Engineering Services	WR	NSWC, IHD:Indian Head, MD	-	-		2.360	Dec 2012	-		2.360	0.000	2.360	
Subtotal -			-		6.392		-		6.392	0.000	6.392		

								*	,	
	Total Prior Years Cost		2012	FY 2013 Base		2013 CO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		16.132	-		16.132	0.000	16.132	

Remarks

PE 0603795N: Land Attack Tech Navy

**UNCLASSIFIED** Page 3 of 5

R-1 Line #71

**DATE:** February 2012 Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 1319: Research, Development, Test & Evaluation, Navy PE 0603795N: Land Attack Tech 2325: Naval Fires Control System BA 4: Advanced Component Development & Prototypes (ACD&P) FY 2013 FY 2013 FY 2013 Cost To **COST (\$ in Millions)** Complete | Total Cost FY 2011 FY 2012 OCO Total FY 2014 FY 2015 FY 2016 FY 2017 Base 2325: Naval Fires Control System 0.899 0.421 0.000 1.320 Quantity of RDT&E Articles 0 0 0 0 0 0 0 0 0

### 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.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Software/System Engineering	0.659	0.296	-
Articles:	0	0	
FY 2011 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.			
FY 2012 Plans:			
Funding will provide 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.			
Title: Technical Design Agent	0.100	0.050	-
Articles:	0	0	
FY 2011 Accomplishments:			
Funding provided Technical Design Agent (TDA) support, joint requirements investigation and Concept of Operations (CONOPs) scenario development.			
FY 2012 Plans:			
Funding will provide Technical Design Agent (TDA) support, joint requirements investigation and Concept of Operations (CONOPs) scenario development.			
Title: C4I Systems	0.140	0.075	-
Articles:	0	0	
FY 2011 Accomplishments:			

PE 0603795N: Land Attack Tech

UNCLASSIFIED

Navy Page 4 of 5 R-1 Line #71

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy	DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0603795N: Land Attack Tech	2325: Nava	al Fires Control System
BA 4: Advanced Component Development & Prototypes (ACD&P)			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Funding provided continued support for C4I and combat system interface investigation and analysis in relation to developing C4I systems and technologies.			
FY 2012 Plans: Funding will provide continued support for C4I and combat system interface investigation and analysis in relation to developing C4I systems and technologies.			
Accomplishments/Planned Programs Subtotals	0.899	0.421	_

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

			FY 2013	FY 2013	FY 2013					Cost To	
<u>Line Item</u>	FY 2011	FY 2012	<b>Base</b>	OCO	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	Complete	<b>Total Cost</b>
• 5112: OPN	1.080	2.049	3.472	0.000	3.472	1.224	1.199	0.909	0.944	0.000	12.264

# 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.

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#### E. Performance Metrics

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

PE 0603795N: Land Attack Tech

Navy Page 5 of 5 R-1 Line #71