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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
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							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	15.966	6.809	0.905	0.000	0.905	0.548	0.555	0.466	0.395	Continuing	Continuing
2156: Naval Surface Fire Support	0.377	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	434.402
2325: Naval Fires Control System	1.227	1.233	0.905	0.000	0.905	0.548	0.555	0.466	0.395	Continuing	Continuing
9999: Congressional Adds	14.362	5.576	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	136.671
A. Mission Description and Budget Item Justification											
The Naval Surface Fire Support (NSFS) (Project 2156) - Mission supports the Land Attack Technology program element. To meet the United States Marine Corp (USMC) requirements for NSFS, the Navy will assess projectiles and systems capable of meeting requirements including range, lethality, accuracy, and responsiveness. The NSFS program included development of a 5" Extended Range Guided Munition (ERGM) with a coupled Global Positioning System (GPS)/Inertial Navigation System (INS) to be fired from the 5"/62 gun (a modification of the existing 5"/54 gun). ERGM was cancelled by USD(AT&L) on 25 July 2008. Cancellation created the need to conduct an Analysis of Alternatives (AoA) to determine new solution for NSFS.											
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 Affordable Weapons System (AWS) (Project 9359A) - Affordable Weapon System-Program previously funded under Project 9359C to conduct a Phase I Study for an Affordable Weapon System (AWS). Phase I included mission concept analysis, mission analysis, system architecture analysis, fly-away cost analysis with life cycle cost impacts, and system engineering for a sea-based land attack and strike mission capable precision strike weapon. The proposed system(s) will operate from ships with potential sea-based Navy/Marine Corps aircraft launch and submarine capability of defeating targets at standoff ranges, and can rapidly complete the engagement phase consistent with making the kill chain short. The potential AWS(s) will not exceed \$250K in fly-away cost. Phase II was funded to exercise contract options for contractor preferred system concept(s), which will be supported by system engineering, best material approach(es), risk analysis, and future plans, while updating fly-away costs and life cycle impacts.											

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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)					
76mm Swarmbuster Capability (Project 9D60A) - (FY09/FY10) Supports efforts to integrate the MK 75 with Close-In Weapons System (CIWS) for ASuW capability against swarming boats.					
Hybrid Propellant for Medium and Large Caliber Ammunition (Project 10C130) - Funding will assess potential usage of domestically produced propellants to support performance goals of the Navy.					
76mm Testing and Integration (Project 9E34A) - New effort will support the testing and integration of the 76mm MK 75 Mod 2 Gun Mount being integrated with the MK 160 Fire Control System and Optical Sight System.					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	17.971	1.238	0.000	0.000	0.000
Current President's Budget	15.966	6.809	0.905	0.000	0.905
Total Adjustments	-2.005	5.571	0.905	0.000	0.905
• Congressional General Reductions		-0.029			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		5.600			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-1.995	0.000			
• SBIR/STTR Transfer	-0.010	0.000			
• Program Adjustments	0.000	0.000	0.905	0.000	0.905
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 9999: Congressional Adds					
Congressional Add: Hybrid Propellant for Medium and Large Caliber Ammunition					
Congressional Add: AFFORDABLE WEAPON SYSTEM (AWS)					
Congressional Add: 76mm Swarmbuster Capability					
Congressional Add: 76MM Testing and Integration					
	FY 2009	FY 2010			
	0.000	3.983			
	11.169	0.000			
	1.596	1.593			
	1.597	0.000			

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603795N: <i>Land Attack Tech</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2009	FY 2010
<div style="text-align: right; padding-right: 20px;">Congressional Add Subtotals for Project: 9999</div>		14.362	5.576
<div style="text-align: right; padding-right: 20px;">Congressional Add Totals for all Projects</div>		14.362	5.576
<u>Change Summary Explanation</u> Technical: Not applicable. Schedule: Not applicable. FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.			

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603795N: <i>Land Attack Tech</i>				PROJECT 2156: <i>Naval Surface Fire Support</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2156: <i>Naval Surface Fire Support</i>	0.377	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	434.402
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>The Naval Surface Fire Support (NSFS) program included development of a 5"/62 gun system (a modification to the existing 5"/54 gun) and a 5" Extended Range Guided Munition (ERGM) with a coupled Global Positioning System (GPS) and an Inertial Navigation System (INS).</p> <p>An Acquisition Decision Memorandum (ADM) signed by USD (AT&L) on July 25, 2008 cancelled the ERGM program and authorized conducting Analysis of Alternatives (AoA) for Joint Fires.</p> <p>The AoA study was completed in September 2009.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Accomplishments/Effort/Subtotal Cost							0.358	0.000	0.000	0.000	0.000
<i>FY 2009 Accomplishments:</i> Contract close-out efforts and Phase I of Analysis of Alternatives (AoA).											
DAWDF							0.019	0.000	0.000	0.000	0.000
Defense Acquisition Workforce Development Fund											
<i>FY 2009 Accomplishments:</i> N/A											
Accomplishments/Planned Programs Subtotals							0.377	0.000	0.000	0.000	0.000

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<p><u>C. Other Program Funding Summary (\$ in Millions)</u> N/A</p> <p><u>D. Acquisition Strategy</u> The ERGM program was cancelled. AoA study was conducted to determine program strategy. AoA was completed in September 2009.</p> <p><u>E. Performance Metrics</u> Not Applicable - program cancelled.</p>		

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2325: <i>Naval Fires Control System</i>	1.227	1.233	0.905	0.000	0.905	0.548	0.555	0.466	0.395	Continuing	Continuing
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 Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
DAWDF Defense Acquisition Workforce Development Fund <i>FY 2009 Accomplishments:</i> N/A						0.006	0.000	0.000	0.000	0.000	
Software/System Engineering <i>FY 2009 Accomplishments:</i> 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.						0.721	0.699	0.665	0.000	0.665	

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 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.						
FY 2011 Base 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.						
Technical Design Agent FY 2009 Accomplishments: Funding provided Technical Design Agent support, joint requirements investigation and Concept of Operations (CONOPs) scenario development. FY 2010 Plans: Funding will provide Technical Design Agent support, joint requirements investigation and Concept of Operations (CONOPs) scenario development. FY 2011 Base Plans: Funding will provide Technical Design Agent support, joint requirements investigation and Concept of Operations (CONOPs) scenario development.		0.100	0.100	0.100	0.000	0.100
C4I Systems FY 2009 Accomplishments: Funding provided C4I and combat system interface investigation with analysis in relation to developing C4I systems and technologies.		0.100	0.200	0.140	0.000	0.140

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Funding will provide continued support for C4I and combat system interface investigation and analysis in relation to developing C4I systems and technologies.						
FY 2011 Base Plans: Funding will provide continued support for C4I and combat system interface investigation and analysis in relation to developing C4I systems and technologies.						
Logistic Support FY 2009 Accomplishments: Funding supported developmental test and evaluation, and logistic support element developments. FY 2010 Plans: Funding supports developmental test and evaluation, and logistics support elements development.		0.100	0.100	0.000	0.000	0.000
Operational Development FY 2009 Accomplishments: Funding supported operational test and evaluation and logistics support element developments. FY 2010 Plans: Funding supports operational test and evaluation, and logistics support element developments.		0.200	0.134	0.000	0.000	0.000
Accomplishments/Planned Programs Subtotals		1.227	1.233	0.905	0.000	0.905

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 5112: <i>OPN</i>	1.690	1.387	1.086	0.000	1.086	1.109	1.118	1.137	1.158	0.000	8.685

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 hardware developer is NUWC-KP.

E. Performance Metrics

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

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	14.362	5.576	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	136.671
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>Project 9359A Affordable Weapons System (AWS) - FY09 \$11,169K Program previously funded under Project 9359C to conduct a Phase I Study for an Affordable Weapon System (AWS). Phase I included mission concept analysis, mission analysis, system architecture analysis, fly-away cost analysis with life cycle cost impacts, and system engineering for a sea-based land attack and strike mission capable precision strike weapon. The proposed system(s) will operate from ships with potential sea-based Navy/Marine Corps aircraft launch and submarine capability of defeating targets at standoff ranges, and can rapidly complete the engagement phase consistent with making the kill chain short. The potential AWS(s) will not exceed \$250K in fly-away cost. Phase II was funded to exercise contract options for contractor preferred system concept(s), which will be supported by system engineering, best material approach(es), risk analysis, and future plans, while updating fly-away costs and life cycle impacts.</p> <p>Project 9D60A 76mm Swarmbuster Capability - FY09 \$1,596K Began efforts to integrate the MK 75 with Close-In Weapons System (CIWS) for ASuW capability against swarming boats.</p> <p>76mm Swarmbuster Capability - FY10 \$1,593K Continue efforts to integrate the MK 75 with Close-In Weapons System (CIWS) for ASuW capability against swarming boats.</p> <p>Project 10C130 Hybrid Propellant for Medium and Large Caliber Ammunition - FY10 \$3,983K Funding will assess potential usage of domestically produced propellants to support performance goals of the Navy.</p> <p>Project 9E34A 76mm Testing and Integration - FY09 \$1,597K This new effort will support the testing and integration of the 76mm MK 75 Mod 2 Gun Mount being integrated with the MK 160 Fire Control System and Optical Sight System.</p>											

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B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
Congressional Add: Hybrid Propellant for Medium and Large Caliber Ammunition <i>FY 2010 Plans:</i> USN qualification of Hybrid Propellant that meets Navy goals and capability requirements.	0.000	3.983
Congressional Add: AFFORDABLE WEAPON SYSTEM (AWS) <i>FY 2009 Accomplishments:</i> Program previously funded under Project 9359C to conduct a Phase I Study for an Affordable Weapon System (AWS). Phase I included mission concept analysis, mission analysis, system architecture analysis, fly-away cost analysis with life cycle cost impacts, and system engineering for a sea-based land attack and strike mission capable precision strike weapon. The proposed system(s) will operate from ships with potential sea-based Navy/Marine Corps aircraft launch and submarine capability of defeating targets at standoff ranges, and can rapidly complete the engagement phase consistent with making the kill chain short. The potential AWS(s) will not exceed \$250K in fly-away cost. Phase II was funded to exercise contract options for contractor preferred system concept(s), which will be supported by system engineering, best material approach(es), risk analysis, and future plans, while updating fly-away costs and life cycle impacts.	11.169	0.000
Congressional Add: 76mm Swarmbuster Capability <i>FY 2009 Accomplishments:</i> Funding supported development and testing of system to support integration of MK 75 with CIWS. <i>FY 2010 Plans:</i> Continue supporting development and testing of system to support integration of MK 75 with CIWS.	1.596	1.593

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B. Accomplishments/Planned Program (\$ in Millions)			
		FY 2009	FY 2010
Congressional Add: 76MM Testing and Integration <i>FY 2009 Accomplishments:</i> Funding supported the testing and integration of the 76mm MK 75 Mod 2 Gun Mount.		1.597	0.000
Congressional Adds Subtotals		14.362	5.576
C. Other Program Funding Summary (\$ in Millions) N/A			
D. Acquisition Strategy N/A			
E. Performance Metrics Quarterly Program Reviews.			

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