

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification				DATE: February 2002					
APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE						
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4			Land Attack Technology/0603795N						
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Total PE Cost	140.357	149.063	108.693	85.632	76.362	70.438	67.162	CONT	CONT
Naval Surface Fire Support (NSFS)/32156*	57.438	42.302	44.766	21.917	8.120	7.189	7.935	CONT	CONT
Advance Medium Caliber Gun Demonstrator (AMCGD)/39051*	0.000	2.577	0.000	0.000	0.000	0.000	0.000	CONT	CONT
Autonomous Naval Support Round (ANSR)/39052**	0.000	10.110	0.000	0.000	0.000	0.000	0.000	CONT	CONT
Advanced Land Attack Missile (ALAM)/32324	3.838	0.000	0.000	0.000	0.000	0.000	0.000	CONT	CONT
Naval Fires Control System (NFCS)/32325	47.080	48.403	29.163	28.863	18.606	13.699	9.755	CONT	CONT
Land Attack Standard Missile (LASM)/K2409	21.086	9.399	0.000	0.000	0.000	0.000	0.000	0.000	86.363
Naval Fires Network (NFN)/32927/32871 **	10.915	34.191	34.764	34.852	49.636	49.550	49.472	CONT	CONT
Integrated Deepwater System (IDS)/39053**	0.000	2.081	0.000	0.000	0.000	0.000	0.000	CONT	CONT
Emergency Response Fund		73.46***							
Quantity of RDT&E Articles & Cost (see attached projects)									

* Funding includes the following FY01 Adds: ERGM/BAA Project 32156 - \$6.951M; NFN Project 32927 - \$.993M, BTR - \$9.922M
 ** Funding includes the following FY02 Adds: NFN Project 32871 - \$29.239M; AMCGD Project 39051 - \$2.577; ANSR Project 39052 - \$10.110M; IDS Project 39053 - \$2.081M
 ***ERF,D Funding \$73.460 supports full systems scheduled to be installed aboard USS BLUE RIDGE, USS LA SALLE, USS LINCOLN.

A. (U) Mission Description and Budget Item Justification: The Land Attack Technology program element supports the Naval Surface Fire Support (NSFS) mission. In order to meet the United States Marine Corp (USMC) requirements for NSFS in support of Operational Maneuvers from the Sea (OMFTS), the Navy is developing a variety of weapons systems including both gun and missile systems that can provide the required range, lethality, accuracy, and responsiveness. The NSFS program (**Project 32156/32624**) develops gun systems including the 5"/62 gun (a modification of the existing 5"/54 gun); a 5" Extended Range Guided Munition (ERGM) with a coupled internal Global Positioning System (GPS) and Inertial Navigation System (INS) capable of delivering a submunition payload to a range in excess of current capability; and associated propelling charge improvements. The Autonomous Naval Support Round (ANSR) (**Project 39052**) is a rolling airframe platform to be used to demonstrate/advance gun-launched guided projectile technologies. The Advanced Medium Caliber Gun System (AMCGS) (**Project 39051**) is a Phase III SBIR designed to demonstrate an advanced gun design encompassing modularity, scalability, compactness, and long range. The Naval Fires Network (NFN) (**Project 32927**) is a system which will automate, coordinate, and correlate, in a real time fashion, the processing of multiple tactical data streams from various surveillance/intelligence sources to provide time-critical fire control solutions for advanced weapon systems and sensors. The automation/correlation provided by NFN will provide the Navy an ability to quickly target and re-target precision weapons, greatly enhancing their effectiveness and lethality. In order to satisfy USMC requirements for longer range, responsive fire support, the Navy is developing the Land Attack Standard Missile (LASM) (**Project K2409**), a variant of the proven Standard Missile. In addition, the Advanced Land Attack Missile (ALAM) (**Project 32324**) was being developed to expand the interim LASM capability using updated technology to fully meet extended range requirements and service the land attack target set as derived from the OMFTS strategy. The ALAM AoA was completed, recommending boost guide candidates and additional follow-on detailed design studies. The Navy intends to pursue competition for ALAM pending Navy and OSD leadership acquisition decisions. The Naval Fires Control System (NFCS) (**Project 32325**) develops systems that will support mission planning for 5"/62 – ERGM and Land Attack Missiles. It will automate shipboard land attack battle management duties to be interoperable and consistent with joint C4ISR systems. These shipboard weapon systems will significantly improve the Navy's ability to support OMFTS. The Land Attack Technology program element also includes the transition of Advance Technology Demonstrations (ATDs) and Pre-Planned Product Improvements (P3Is) into the NSFS program. The Integrated Deepwater System (**Project 39053**) supports USN evaluation of Intermediate Caliber Gun Systems and associated munitions for Anti-Surface Warfare mission area capability in USN Surface Combatants and USCG Cutters.

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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4		R-1 ITEM NOMENCLATURE Land Attack Technology/0603795N																					
<p>B. (U) Program Change Summary:</p> <table border="0"> <thead> <tr> <th></th> <th style="text-align: right;"><u>FY 2001</u></th> <th style="text-align: right;"><u>FY 2002</u></th> <th style="text-align: right;"><u>FY 2003</u></th> </tr> </thead> <tbody> <tr> <td>(U) FY 2002 President's Budget:</td> <td style="text-align: right;">138.956</td> <td style="text-align: right;">130.993</td> <td></td> </tr> <tr> <td>(U) Appropriated Value:</td> <td style="text-align: right;">140.244</td> <td style="text-align: right;">150.393</td> <td></td> </tr> <tr> <td>(U) Adjustments to FY2001/2002 Appropriated Value/FY 2002 President's Budget</td> <td style="text-align: right;">0.113</td> <td style="text-align: right;">-1.330</td> <td></td> </tr> <tr> <td>(U) FY 2003 Pres Budget Submit:</td> <td style="text-align: right;">140.357</td> <td style="text-align: right;">149.063</td> <td style="text-align: right;">108.693</td> </tr> </tbody> </table> <p>Funding: FY 2001: Adjustments due to: LASM BTR (+\$.113K) FY 2002: Adjustments due to: Issue 67825 Section 8123 Management Reform Initiative (-\$1.330K)</p> <p>Schedule: The Land Attack Technology PE comprises multiple programs to provide a Naval Surface Fire Support capability. The challenge is the coordinated delivery of the Mk 45 Mod 4 Gun System, the Extended Range Guided Munition, the Mk 160 Fire Control upgrades, the Propelling Charge upgrade and the Naval Fires Control System that together provide a significant enhancement to Naval Surface Fire Support. Technical challenges and the decision of the prime contractor to close its developmental plant in Lewisville, TX and move ERGM related development activities to Tucson, AZ caused delays in the ERGM program and subsequently impacting the other programs and the NSFS capability. The Government recently restructured the ERGM contract with RMS and signed a contract modification on 11 Dec 2000. The contract was restructured to moved the IOC from FY04 to FY05 to make the program more affordable. This change stretched out all ERGM development activity including CDR, Opeval Round Procurement, LRIP, Techeval, Opeval and MSIII. Following the restructured contract modification, RMS recently successfully completed its first flight demonstration of the ERGM on schedule which bodes well for meeting the restructured contract schedule and supporting an FY05 IOC.</p> <p>Technical: N/A</p>					<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	(U) FY 2002 President's Budget:	138.956	130.993		(U) Appropriated Value:	140.244	150.393		(U) Adjustments to FY2001/2002 Appropriated Value/FY 2002 President's Budget	0.113	-1.330		(U) FY 2003 Pres Budget Submit:	140.357	149.063	108.693
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EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2002				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4		Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Naval Surface Fire Support/32156/32624/39051/39052				
COST (\$ in Millions)	FY 2001*	FY 2002**	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	57.438	54.989	44.766	21.917	8.120	7.189	7.935	CONT	CONT
RDT&E Articles Qty			80						
<p>*Funding includes FY 2001 ERGM Congressional Add \$6.951M **Funding includes FY 2002 Congressional Adds for NSFS: ANSR Project 39052 - \$10.110M; AMCGD Project 39051 - \$2.577M</p> <p>A. (U) Mission Description and Budget Item Justification: These funds provide for the development of the 5"/62 Extended Range Guided Munition (ERGM) weapons system which consists of a: 5" MK 45 gun modification which strengthens the gun to accommodate higher firing loads (18 megajoules) to fire the EX 171 Extended Range Guided Munition (ERGM); ERGM, a 5" munition with an internal Global Positioning System receiver coupled with an inertial Navigation System capable of delivering a submunitions to ranges in excess of 41NM; a gun fire control system which updates the MK 160 MOD 7 to a MOD 8 providing direct digital interface with the gun as well as the ERGM; and an upgraded propelling charge to provide the higher gun firing energy required by ERGM. This project also includes the demonstration and the advancement of gun-launched guided projectile technologies, the demonstration and advancement of long-range modular scalable gun designs, and the transition of ATDs and Pre-Planned Product Improvements (P³Is) into the NSFS envelope.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2001 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$37.801) Began transition from design to validation and test of ERGM design. Conducted program maneuver flights of EDM ERGMs. - (U) (\$ 7.936) ERGM Broad Agency Announcement. - (U) (\$ 1.427) Began transition from development to validation of EX-167 Propelling Charge. - (U) (\$ 9.087) Continue development and testing of 5" MK 45 modification and GFP preparation. - (U) (\$ 1.187) Continue development and testing of the Gun Fire Control Modification and required interfaces. <p>2. (U) FY 2002 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$33.308) Continue development of EX-171 EDMs for ERGM. Continue rocket motor testing and component integration. - (U) (\$ 1.212) Continue development of EX-167 Propelling Charge. - (U) (\$ 6.836) Continue development and testing of 5" MK 45 modification and GFM preparation. Continue test firing of the modification. 									

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4	PROGRAM ELEMENT NAME AND NUMBER Land Attack Techology/0603795N	PROJECT NAME AND NUMBER Naval Surface Fire Support/32156/32624/39051/39052																																								
<p>2. (U) FY 2002 PLAN (Cont):</p> <ul style="list-style-type: none"> - (U) (\$.946) Continue development and testing of the Gun Fire Control Modification and required interfaces. - (U) (\$10.110) Begin demonstration of a low-cost guidance electronic unit in a rolling airframe. - (U) (\$ 2.577) Begin demonstration of an advanced modular, scalable, compact, long-range gun design. <p>3. (U) FY 2003 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$28.685) Continue development of EX-171 EDMs for ERGM. Continue rocket motor testing and component integration. - (U) (\$ 7.500) ERGM LRIP Buy - (U) (\$ 1.028) Continue development of EX-167 Propelling Charge. - (U) (\$ 7.076) Continue development and testing of 5" MK 45 modification and GFM preparation. Continue test firing of the modification. - (U) (\$.477) Continue development and testing of the Gun Fire Control Modification and required interfaces. <p>B. (U) Other Program Funding Summary:</p> <table border="1"> <thead> <tr> <th></th> <th><u>FY2001</u></th> <th><u>FY2002</u></th> <th><u>FY2003</u></th> <th><u>FY2004</u></th> <th><u>FY2005</u></th> <th><u>FY2006</u></th> <th><u>FY2007</u></th> <th><u>Complete</u></th> <th><u>Cost</u></th> </tr> </thead> <tbody> <tr> <td>PAN,MC BL, 025300</td> <td>5.669</td> <td>5.105</td> <td>4.022</td> <td>16.210</td> <td>58.203</td> <td>105.720</td> <td>102.683</td> <td></td> <td></td> </tr> <tr> <td>WPN BLI:4217, E5004</td> <td>25.000</td> <td>21.000</td> <td>0.000</td> <td>0.000</td> <td>0.000</td> <td>0.000</td> <td>0.000</td> <td></td> <td></td> </tr> <tr> <td>SCN BLI 212200</td> <td>36.241</td> <td>24.868</td> <td>25.507</td> <td>25.507</td> <td>12.753</td> <td>TBD</td> <td>TBD</td> <td></td> <td></td> </tr> </tbody> </table> <p>(U) Related RDT&E,N: N/A</p> <p>C. (U) Acquisition Strategy: A competition was held in FY 96 for the ERGM. It resulted in an award to Texas Instruments (now Raytheon Missile Systems) with a corporate investment of \$55M for development cost. The gun is being developed under a sole source arrangement with United Defense, the current 5"/54 MK 45 MOD 2 producer. The Fire Control (MK 160) and the propelling charge are being developed by the Naval Surface Warfare Center, Indian Head since these system changes are modifications to current government owned/supplied equipment. The Technology demonstration/advancement via ANSR contract award is TBD. The AMCGS demonstration will be awarded to TBD.</p>				<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>	<u>Complete</u>	<u>Cost</u>	PAN,MC BL, 025300	5.669	5.105	4.022	16.210	58.203	105.720	102.683			WPN BLI:4217, E5004	25.000	21.000	0.000	0.000	0.000	0.000	0.000			SCN BLI 212200	36.241	24.868	25.507	25.507	12.753	TBD	TBD		
	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>	<u>Complete</u>	<u>Cost</u>																																	
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SCN BLI 212200	36.241	24.868	25.507	25.507	12.753	TBD	TBD																																			

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Naval Surface Fire Support/32156/32624/39051/39052						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target of Contract
Privitization	CPIF/FF	UDLP, Minneapolis, MN	3.908									
Primary Hardware Development	CPIF/FF	UDLP, Minneapolis, MN	50.324	5.219	11/00	2.700	11/01	3.400	11/02	CONT	CONT	57.424
	CPAF/IF	Raytheon, Tucson, AZ	88.148	26.621	11/00	19.815	11/01	9.648	11/02	CONT	CONT	146.800
	WR	NSWC Dahlgren, VA	56.867							CONT	CONT	N/A
	WR	NSWC Indian Head, MD	15.088							CONT	CONT	N/A
	WR	NSWC Port Hue., CA	25.386							CONT	CONT	N/A
LRIP	CPAF/IF	Raytheon, Tucson, AZ	0.000	0.000	N/A	0.000	N/A	7.500	11/02	CONT	CONT	7.500
ERGM BAA	CPFF	Draper, Cambridge, MA	3.596	4.654	11/00	0.000	11/01	0.000	N/A	CONT	CONT	9.950
	WR	NSWC	0.365	2.250	11/00	0.000	11/01	0.000	N/A	CONT	CONT	N/A
	VAR	Miscellaneous	0.000	0.247	11/00	0.000	11/01	0.000	N/A	CONT	CONT	N/A
ANSR Demonstration	TBD	TBD	0.000	0.000	N/A	8.000	TBD	0.000	N/A	CONT	CONT	8.000
	WR	NSWC	0.000	0.000	N/A	2.110	TBD	0.000	N/A	CONT	CONT	N/A
AMCGS Demonstration	FF	TBD	0.000	0.000	N/A	2.527	TBD	0.000	N/A	CONT	CONT	N/A
	WR	NSWC	0.000	0.000	N/A	0.050	TBD	0.000	N/A	CONT	CONT	N/A
MEMS	VAR	Miscellaneous	2.000							CONT	CONT	N/A
Systems Engineering	VAR	Miscellaneous	43.976	1.530	11/00	1.613	11/01	1.659	11/02	CONT	CONT	N/A
Award Fees	CPAF/IF	Raytheon, Tucson, AZ	2.282	0.000	N/A	1.185	06/02	0.480	11/02	CONT	CONT	4.156
Subtotal Product Development			291.940	40.521		38.000		22.687		CONT	CONT	CONT
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support	WR	NSWC	2.752	2.057	11/00	2.017	11/01	1.904	11/02	CONT	CONT	N/A
Configuration Management												
Technical Data												
GFE												
Subtotal Support			2.752	2.057		2.017		1.904		CONT	CONT	

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Naval Surface Fire Support/32156/32624/39051/39052						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC	8.654	7.888	11/00	7.030	11/01	12.994	11/02	CONT	CONT	N/A
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			8.654	7.888		7.030		12.994		CONT	CONT	N/A
Remarks:												
Contractor Engineering Support												
Government Engineering Support	WR	NSWC	5.392	4.108	11/00	3.665	11/01	3.450	11/02	CONT	CONT	N/A
Program Management Support	WR	Various	5.255	2.764	11/00	4.177	11/01	3.631	11/02	CONT	CONT	N/A
Travel	PD	NAVSEA HQ	0.628	0.100	VAR	0.100	VAR	0.100	VAR	CONT	CONT	N/A
Labor (Research Personnel)												
Overhead												
Subtotal Management			11.275	6.972		7.942		7.181		CONT	CONT	N/A
Remarks:												
Total Cost			314.821	57.438		54.989		44.766		CONT	CONT	CONT
Remarks:												

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4		Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Advanced Land Attack Missile/32324				
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	3.838	0.000	0.000	0.000	0.000	0.000	0.000	CONT	CONT
RDT&E Articles Qty									
<p>A. (U) Mission Description and Budget Item Justification: The Advanced Land Attack Missile (ALAM) and its associated weapons control system was intended to expand present interim capability provided by LASM in Aegis ships and to fully meet extended range requirements beyond present capability and service the land attack target set as derived from the OMFTS strategy. This capability was to be introduced into the DD21 Land Attack Destroyer to supplement its operational Mission Needs Statement. The ALAM was to exploit upcoming technologies to service high threat mobile, stationary and hardened targets during all stages of conflict. It was to be compatible with and integrated into future theater level command, control and other support weapons and systems. The Navy intends to pursue competition pending Navy and OSD leadership acquisition decisions.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2001 ACCOMPLISHMENTS: - (U) (\$3.838) Completed Analysis of Alternatives (AoA): Planning for and initiating Component Advanced Development; Accomplish Decision Review.</p> <p>2. (U) FY 2002 PLAN: - (U) (\$0) N/A</p> <p>3. (U) FY 2003 PLAN: (U) (\$0) N/A</p> <p>B. (U) Other Program Funding Summary: N/A</p> <p>- (U) Related RDT&E,N: N/A</p> <p>C. (U) Acquisition Strategy: N/A</p>									

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APPROPRIATION/BUDGET ACTIVITY
RDT&E, N/BA-4

PROGRAM ELEMENT NAME AND NUMBER
Land Attack Technology/0603795N

PROJECT NAME AND NUMBER
Advanced Land Attack Missile/32324

D. (U) Schedule Profile:

Fiscal Year	99	00	01	02	03	04	05	06	07
Quarter	I II III IV IV	I II III IV	I II III IV	I II III IV	I II III IV	I II III IV	I II III IV	I II III IV	I II III IV
Milestone	MS 0 				 Decision Review				
Analysis of Alternatives			18 months						
Component Advanced Development									
System Development and Demonstration									

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RDT&E, N/BA-4			Land Attack Technology/0603795N			Advanced Land Attack Missile/32324						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target of Contract
Primary Hardware Dev Phase I & II	C/CP	ALAM Industry Team		1.500								
Ancillary Hardware Development												
Systems Engineering	WR	NSWC, Dahlgren, VA	0.447	0.250						CONT	CONT	
	SS/CPFF	JHU/APL, Laurel, MD	1.214	0.500						CONT	CONT	
	WR	NAWC, China Lake, CA	0.000	0.300						CONT	CONT	
	WR	CNA, Alexandria, VA	0.513	0.000						CONT	CONT	
Tooling												
GFE												
Award Fees												
Subtotal Product Development			2.174	2.550		0.000		0.000		CONT	CONT	
Remarks:												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support												
Configuration Management												
Technical Data												
GFE												
Subtotal Support			0.000	0.000		0.000		0.000		CONT	CONT	
Remarks:												

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APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Advanced Land Attack Missile/32324						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			0.000	0.000		0.000		0.000		CONT	CONT	
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support	VAR	VARIOUS	0.301	1.288	11/00	0.000		0.000				
Travel	PD	NAVSEA HQ	0.000	0.000		0.000		0.000				
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.301	1.288		0.000		0.000		CONT	CONT	
Remarks:												
Total Cost			2.475	3.838		0.000		0.000		CONT	CONT	
Remarks:												

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER				PROJECT NAME AND NUMBER				
RDT&E, N/BA-4	Land Attack Technology/0603795N				Naval Fires Control System (NFCS) & Land Attack Fire Control Systems (LAM FCS)/32325				
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	47.080	48.403	29.163	28.863	18.606	13.699	9.755	CONT	CONT
RDT&E Articles Qty									
<p>A. (U) Mission Description and Budget Item Justification: Naval Fires Control System (NFCS) covers the mission planning and coordination for future Naval Surface Fire Support system requirements. NFCS will plan, coordinate and manage the firing of the new Naval Surface Fires Support (NSFS) weapon systems including the 5"/62 caliber gun, Conventional Munitions, and the Land Attack Missile (LAM) and LAM Fire Control. It will be available to amphibious ships, command ships, and the DD-21 program if selected by the full service contractor. The software will be integrated into Tactical TOMAHAWK Weapons Control Systems (TTWCS) in FY 2004, but will initially be hosted in the existing combat suite on DDG-81 for fleet introduction in FY 2002. Prototyping, demonstrations and developments were conducted during FY 2000 and FY 2001.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2001 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$19.925) Software and system engineering to include analysis, development, reuse and integration of government and commercial computer programs to support ERGM, LAM and other naval weapon applications. - (U) (\$ 3.510) Support hardware configuration to support NFCS implementation. Support DT Validation. - (U) (\$ 2.649) Technical Direction Agent support, joint requirements investigation, Concept of Operations (CONOPs) scenario development. - (U) (\$ 0.981) C4I and combat system interface investigation and analysis to include BFTT, Link 16, TTWCS and other developing C4I system and technology. - (U) (\$ 1.366) Developmental test & evaluation, and logistic support elements development. - (U) (\$ 5.494) LAM integration design, development and integration includes modification to Vertical Launch System. - (U) (\$10.693) LAM Fire Control system engineering and software development including interface development with NFCS, GPS and other weapon systems. - (U) (\$ 1.962) LAM Fire Control Program management and logistic support elements development. - (U) (\$ 0.500) LAM Fire Control Development Test and Evaluation. <p>2. (U) FY 2002 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$16.584) Software and system engineering to include analysis, development, reuse and integration of government and commercial computer programs to support ERGM, LAM and other naval weapon applications. - (U) (\$ 3.651) Support hardware configuration to support NFCS implementation. Support DT Validation. - (U) (\$ 2.700) Technical Direction Agent support, joint requirements investigation, Concept of Operations (CONOPs) scenario development. - (U) (\$ 1.000) C4I and combat system interface investigation and analysis to include BFTT, Link 16, TTWCS and other developing C4I system and technology. 									

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2002																																				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4			PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N				PROJECT NAME AND NUMBER Naval Fires Control System (NFCS) & Land Attack Fire Control (LAM FCS)/32325																																				
<p>2. (U) FY 2002 PLAN (Con't):</p> <ul style="list-style-type: none"> - (U) (\$ 3.500) Developmental test & evaluation, and logistic support elements development. - (U) (\$ 6.200) LAM integration design, development and integration includes modification to Vertical Launch System. - (U) (\$12.768) LAM Fire Control system engineering and software development including interface development with NFCS, GPS and other weapon systems. - (U) (\$ 1.500) LAM Fire Control Program management and logistic support elements development. - (U) (\$ 0.500) LAM Fire Control development test and evaluation. <p>3. (U) FY 2003 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$ 11.672) Software and system engineering to include analysis, development, reuse and integration of government and commercial computer programs to support ERGM and other naval weapon applications. - (U) (\$ 3.924) Support hardware configuration to support NFCS implementation. Support DT Validation. - (U) (\$ 6.723) Technical Direction Agent support, joint requirements investigation, Concept of Operations (CONOPs) scenario development. - (U) (\$ 2.000) C4I and combat system interface investigation and analysis to include BFTT, Link 16, TTWCS and other developing C4I system and technology. - (U) (\$ 4.844) Operational test & evaluation, and logistic support elements development. - <p>B. (U) Other Program Funding Summary:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th><u>FY2000</u></th> <th><u>FY2001</u></th> <th><u>FY2002</u></th> <th><u>FY2003</u></th> <th><u>FY2004</u></th> <th><u>FY2005</u></th> <th><u>FY2006</u></th> <th><u>FY2007</u></th> <th><u>To Complete</u></th> <th><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>O&MN 1D4D,070812N</td> <td></td> <td></td> <td></td> <td>1.967</td> <td>2.830</td> <td>3.970</td> <td>2.937</td> <td>3.081</td> <td>CONT.</td> <td>CONT.</td> </tr> <tr> <td>OPN BL,511200</td> <td></td> <td></td> <td>.595</td> <td>5.690</td> <td>5.784</td> <td>4.085</td> <td>9.437</td> <td>5.172</td> <td>CONT.</td> <td>CONT.</td> </tr> </tbody> </table> <p>C. (U) Acquisition Strategy: The acquisition strategy has been approved. A sole source contract has been awarded to GDIS for Phase 1. Phase 1+ will be embedded in TTWCS along with the LAM FCS. Phase 2 requirements will be either competed or an existing system development contract will be used.</p>												<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>	<u>To Complete</u>	<u>Total Cost</u>	O&MN 1D4D,070812N				1.967	2.830	3.970	2.937	3.081	CONT.	CONT.	OPN BL,511200			.595	5.690	5.784	4.085	9.437	5.172	CONT.	CONT.
	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>	<u>To Complete</u>	<u>Total Cost</u>																																	
O&MN 1D4D,070812N				1.967	2.830	3.970	2.937	3.081	CONT.	CONT.																																	
OPN BL,511200			.595	5.690	5.784	4.085	9.437	5.172	CONT.	CONT.																																	

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Naval Fires Control System (NFCS) & Land Attack Fire Control Systems (LAM FCS)/32325						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Software Development	SS/CPAF	GDIS, Arlington, VA	15.377	7.940	11/00	2.956	11/01	3.727	11/02	CONT	CONT	TBD
	SS/CPAF	LM/MDS, Valley Forge, PA	0.000	11.000	11/00	12.869	11/01	9.125	11/02	CONT	CONT	
	WR	NSWC, Dahlgren, VA	2.300							CONT	CONT	
	VAR	VARIOUS	1.619							CONT	CONT	
	WR	SSC/SD	0.000	1.295	10/00	1.100	10/01	1.100	10/02	CONT	CONT	
Systems Engineering	WR	SSC/SD	2.951							CONT	CONT	
	WR	NSWC, Dahlgren, VA	2.901	2.669	10/00	3.203	10/01	5.311	10/02	CONT	CONT	
	SS/CP	VITRO/BAE	0.600	0.070	11/00	0.000	N/A	0.000	N/A	CONT	CONT	
	VAR	VARIOUS	1.804							CONT	CONT	
Ancillary Hardware Development	WR	NUWC, Keyport Division	6.100	1.289	10/00	0.935	10/01	1.259	10/02	CONT	CONT	
	WR	NSWC/PT HUE, CA	0.000	0.898	10/00	1.100	10/01	0.880	10/02	CONT	CONT	
	VAR	PMFATDS	0.000	0.500	10/00	0.709	10/01	1.100	10/02	CONT	CONT	
	SS/CPAF	JHU/APL	0.000	0.400	11/00	0.300	11/01	0.198	11/02	CONT	CONT	
	WR	NSWC, Dahlgren, VA	2.100	0.000	N/A	0.000	N/A	0.000	N/A	CONT	CONT	
	VAR	VARIOUS	2.541	0.000	N/A	0.000	N/A	0.000	N/A	CONT	CONT	
LAM FC Hardware/Software Dev	SS/CPFF	LM/Baltimore, MD	0.000	3.689	11/00	4.500	11/01					
CANCELLED	SS/CPAF	LM/MDS, Valley Forge, PA	0.000	10.300	11/00	10.460	11/01					
	SS/CPFF	UDLP	0.000	0.455								
	WR	NSWC, Dahlgren, VA	0.000	0.854	10/00	0.843	10/01					
	WR	SSC/SD	0.000	0.400	10/00	0.440	10/01					
LAM FC Systems Engineering	SS/CPFF	JHU/APL	0.000	0.160	11/00	0.000	N/A					
CANCELLED	WR	NSWC/PT HUE, CA	0.000	0.150	10/00	0.165	10/01					
Award Fees			1.696	0.983	TBD	4.223	TBD	1.290	TBD	CONT	CONT	
Subtotal Product Development			39.989	43.052	10/00	43.803	10/01	23.990	10/02	CONT	CONT	
Remarks:												
Development Support Equipment												
Software Development		NSWC, Panama City	0.000	0.049								
Training Development												
Integrated Logistics Support	VAR	VARIOUS	2.170	1.331	Various	1.311	Various	1.387	Various	CONT	CONT	
Configuration Management												
Technical Data												
GFE												
Subtotal Support			2.170	1.380		1.311		1.387		CONT	CONT	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Naval Fires Control System (NFCS) & Land Attack Fire Control Systems (LAM FCS)/32325						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC/PT HUE, CA	0.800	0.000	N/A	2.000	10/01	1.000	10/02	CONT	CONT	
	VAR	Various	0.000	1.500	10/00							
Operational Test & Evaluation	VAR	Various	0.000	0.000	N/A	0.000	N/A	2.300	10/02			
Tooling												
GFE												
Subtotal T&E			0.800	1.500		2.000		3.300		CONT	CONT	
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support	VAR	VARIOUS		1.093	Various	1.189	Various	0.386	Various			
Travel	PD	NAVSEA HQ	0.200	0.055	Various	0.100	Various	0.100	Various	CONT	CONT	
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.200	1.148		1.289		0.486		CONT	CONT	
Remarks:												
Total Cost			43.159	47.080		48.403		29.163		CONT	CONT	
Remarks:												

R-1 SHOPPING LIST - Item No. 85 - 16 of 85 - 31

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 16 of 31)

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EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2002

APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4	PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N				PROJECT NAME AND NUMBER Land Attack Standard Missile K2409					
COST (\$ in Millions)	PYs	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	30.794	21.086	9.399	0.000	0.000	0.000	0.000	0.000	0.000	61.279
RDT&E Articles Qty	8	5								13

A. (U) Mission Description and Budget Item Justification: This project funds the Land Attack Standard Missile (LASM) (SM-4) program to provide responsive, all-weather, around-the-clock Naval Surface Fire Support to Ground Combat Elements beyond that which is available from gun systems. Major efforts involved are systems integration and testing. Systems integration consists of integrating Global Positioning System/Inertial Navigation System (GPS/INS) guidance, Height of Burst (HOB) sensor(s), warhead modifications, and new flight software to optimize effects against ground targets. Testing will include ground and flight tests to demonstrate safety, range, accuracy, jamming resistance, lethality, and reliability. RDT&E,N articles include Inert Operational Missiles (IOMs) and a Dynamic Inert Missile (DIM) for ground testing and complete All Up Rounds (AURs) for flight testing.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 2001 ACCOMPLISHMENTS:

- (U) (\$16.136) Continued mechanical/electrical designs, software design, round-level integration, and critical design review; initiated ground tests and integration of missile with ship systems; complete fabrication and delivery of IOM, DIM, and hardware for flight testing at White Sands Missile range (WSMR); held successful Critical Design Review.
- (U) (\$1.000) Continued software validation and verification.
- (U) (\$3.950) Began development of 6-Degrees of Freedom (DOF) modeling and simulation and computer-in-the-loop facility.

2. (U) FY 2002 PLAN:

- (U) (\$3.000) Integrate hardware and software.
- (U) (\$2.400) Round-level integration.
- (U) (\$1.500) Ground testing (Battery).
- (U) (\$1.499) Complete section level and missile level environmental qualification.
- (U) (\$0.500) Validate 6-DOF modeling and simulation.
- (U) (\$0.500) Documentation and storage.

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2002
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4	PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N	PROJECT NAME AND NUMBER Land Attack Standard Missile K2409

B. (U) Other Program Funding Summary:

<u>Cost</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Complete</u>	<u>Total Cost</u>
WPN 223700	0	0	0	0	0	0	0	0	0	0
O&MN 1D3D, 0701113N	0	0.003	0	0	0	0	0	0	0	0.003

(U) Related RDT&E,N: N/A

C. (U) Acquisition Strategy: Pre Engineering and Manufacturing Development (E&MD) efforts were conducted under level of effort contracts with the SM-2 Design Agent (DA). A cost-plus E&MD completion contract was awarded to the DA to develop and integrate the necessary changes and to support Development Test/Operational Test (DT/OT) of LASM.

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Exhibit R-3 Cost Analysis (page 1)						DATE: February 2002						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Land Attack Standard Missile K2409						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development												
Ancillary Hardware Development	WR	NSWC/Dahlgren, VA	2.825	2.825	10/00	0.050	10/01				5.700	
	WR	VAR	0.675	0.825	10/00	0.100	10/01				1.600	
Systems Engineering	WR	VAR	4.666	1.720	10/00	0.300	10/01				6.686	
	SS/CPAF	Raytheon Missile Systems, Tucson,	17.112	11.543	10/00	7.559	10/01				36.214	
Award Fees			1.503	1.231	10/00	0.840	10/01				3.574	
Subtotal Product Development			26.781	18.144		8.849					53.774	
Remarks:												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support	WR	VARIOUS	0.310	0.182	10/00	0.050	10/01				0.542	
Configuration Management	WR	VARIOUS	0.465	0.400	10/00	0.100	10/01				0.965	
Technical Data												
GFE												
Subtotal Support			0.775	0.582	01/00	0.150					1.507	
Remarks:												

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)						DATE: February 2002						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Land Attack Standard Missile K2409						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWC/WD, White Sands	0.950	0.275	10/00	0.000	10/01				1.225	
	WR	VAR	0.235	0.700	10/00	0.150	10/01				1.085	
Operational Test & Evaluation	WR	NAWC/AD, Pt Mugu,CA	0.200	0.200	10/00	0.000	10/01				0.400	
	WR	VAR	0.090	0.120	10/00	0.000	10/01				0.210	
Tooling												
GFE												
Subtotal T&E			1.475	1.295		0.150					2.920	
Contractor Engineering Support	VAR	VAR	0.975	0.500	10/00	0.100	10/01				1.575	
Government Engineering Support												
Program Management Support	VAR	VAR	0.713	0.500	10/00	0.140	10/01				1.353	
Travel	PD	NAVSEA HQ	0.075	0.065	VAR	0.010	10/01				0.150	
Labor (Research Personnel)												
Overhead												
Subtotal Management			1.763	1.065		0.250					3.078	
Remarks:												
Total Cost			30.794	21.086		9.399					61.279	
Remarks:												

R-1 SHOPPING LIST - Item No. 85 - 20 of 85 - 31

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Exhibit R-3, Project Cost Analysis

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EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2002					
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4	Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Naval Fires Network/32927/32871					
COST (\$ in Millions)	FY 2001*	FY 2002**	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	10.915	34.191	34.764	34.852	49.636	49.550	49.472	CONT	CONT
Emergency Response Fund		73.46***							
RDT&E Articles Qty									
<p>*Funding includes NFN FY 2001 Congressional Add \$.993M, BTR \$9.922M **Funding includes NFN FY 2002 Congressional Add \$29.500M ***ERF,D Funding \$73.460 supports full systems scheduled to be installed aboard USS BLUE RIDGE, USS LA SALLE, USS LINCOLN.</p> <p>A. (U) Mission Description and Budget Item Justification: These funds provide for the Naval Fires Network (NFN) to develop a system which will automate, coordinate, and correlate, in a real time fashion, the processing of multiple tactical data streams from various surveillance/intelligence sources to provide time-critical fire control solutions for advanced weapon systems and sensors. The automation/correlation provided by NFN will provide the Navy an ability to quickly target and re-target precision weapons, greatly enhancing their effectiveness and lethality.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2001 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$5.165) Limited Objective Experiment (LOE) 1, 2, and 3 completed. Fleet Battle Experiment (I) (FBE) completed. - (U) (\$5.000) FY01 Supplemental. RTC install on CVN1. Full system install preparation on CVN2. - (U) (\$.750) FY01 BTR- AOA Phase 1. <p>2. (U) FY 2002 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$.903) Development of hardware for NFN. - (U) (\$ 2.299) Development of software for NFN. - (U) (\$.350) Testing of on-board and land-based facilities. - (U) (\$ 8.800) Development of Tactical Dissemination Module (TDM). - (U) (\$.200) Acquisition Planning. - (U) (\$.900) Program management support. - (U) (\$17.739) Support hardware/software, GFE buy, installation and upgrades for existing interfaces and communications. - (U) (\$ 3.000) Training/Training System Development. 									

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4	PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N	February 2002
<p>3. (U) FY 2003 PLAN:</p> <ul style="list-style-type: none">- (U) (\$.360) Development of hardware for NFN.- (U) (\$ 2.659) Development of software for NFN.- (U) (\$.350) Testing of on-board and land-based facilities.- (U) (\$.300) Development of Tactical Dissemination Module (TDM).- (U) (\$ 3.000) Acquisition Planning/ DoD 5000 Documentation.- (U) (\$ 3.600) Acquisition Strategy, AoA, TEMP and other Required Acquisition Documentation.- (U) (\$18.000) Support hardware/software, GFE buy, installation and upgrades for existing interfaces and communications.- (U) (\$ 2.000) Provides onboard ship and intergrated logistics support.- (U) (\$ 1.200) Training/Training System Development.- (U) (\$ 2.000) P3I and future Limited Objective Experiments/ Fleet Battle Experiments. (LOE/FBE)- (U) (\$ 1.295) X, Ku, Phased Array Antenna System Development . <p>B. (U) Other Program Funding Summary: N/A</p> <p>(U) Related RDT&E,N: NAVAIRSYSCOM PE0204152N, FY 2001 \$5.765M</p> <p>C. (U) Acquisition Strategy: The Naval Fires Network (NFN) program will utilize contracting vehicles already in place for the existing Army Tactical Exploitation System (TES) program. The Navy plan is to adapt Army TES for use in NFN support of Navy Network Centric Warfare Time Critical Targeting.</p>		

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Exhibit R-2a, RDT&E Project Justification
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EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2002
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4	PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N	PROJECT NAME AND NUMBER Naval Fires Network/32927/32871
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E. (U) Schedule Profile

	FY00				FY01				FY02				FY03				FY04				FY05				FY06															
	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												
Naval Fires Network (NFN)																																								
Coronado Demo					FBE (1)	△	△	△																																
System Upgrade									△	—————										▽																				
Acquisition Strategy, AoA, TEMP and other Required Documentation													△	—————										▽																

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Exhibit R-3 Cost Analysis (page 1)									DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Naval Fires Network/32927/32871						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target of Contract
System Build	WR/MIPR	SAF/FMB/OLE (Air Force)	6.810	1.000	N/A	17.739	N/A	16.800	N/A	CONT	CONT	24.610
Modify System GFE	WR/MIPR	SAF/FMB/OLE (Air Force)	1.000	1.000	N/A	0.000	N/A	0.000	N/A	CONT	CONT	2.000
Training	WR/MIPR	SAF/FMB/OLE (Air Force)	0.400	0.700	N/A	0.000	N/A	1.200	N/A	CONT	CONT	2.300
Installation	WR	NSWC PHD, Pt. Hueneme, CA	0.170	1.100	N/A	0.000	N/A	2.000	N/A	CONT	CONT	3.270
LOE/FBE "I"	CPFF/IF/AF	VARIOUS	0.000	1.819	11/00	0.000	N/A	2.000	N/A	CONT	CONT	3.819
	WR	VARIOUS	0.000	3.624	11/00	0.000	N/A	0.000	N/A	CONT	CONT	N/A
AOA	WR	VARIOUS	0.000	0.750	N/A	0.000	N/A	0.000	N/A	CONT	CONT	N/A
Primary Hardware Development	CPFF/IF/AF	VARIOUS	0.000	0.000	N/A	0.830	11/01	0.317	11/02	CONT	CONT	2.100
	WR/MIPR	SAF/FMB/OLE (Air Force)	0.000	0.000	N/A	0.073	11/01	0.043	11/02	CONT	CONT	N/A
Primary Software Development	CPFF/IF/AF	VARIOUS	0.000	0.000	N/A	2.040	11/01	2.312	11/02	CONT	CONT	4.583
	WR/MIPR	SAF/FMB/OLE (Air Force)	0.000	0.000	N/A	0.259	11/01	0.347	11/02	CONT	CONT	N/A
Testing	CPFF/IF/AF	VARIOUS	0.000	0.000	N/A	0.310	11/01	0.310	11/02	CONT	CONT	2.100
	WR/MIPR	SAF/FMB/OLE (Air Force)	0.000	0.000	N/A	0.040	11/01	0.040	11/02	CONT	CONT	N/A
TDM	WR	NAWC China Lake	0.000	0.000	N/A	8.800	11/01	0.300	11/02	CONT	CONT	N/A
Training/ Training Syst. Development	CPFF/IF/AF	VARIOUS	0.000	0.000	N/A	3.000	N/A	1.200	11/02	CONT	CONT	N/A
X, Ku, PAA Development	CPFF/IF/AF	VARIOUS	0.000	0.000	N/A	0.000	N/A	1.295	11/02	CONT	CONT	N/A
Acquisition Planning	WR	NSWC Dahlgren, VA	0.000	0.000	N/A	0.200	11/01	3.000	11/02	CONT	CONT	N/A
Subtotal Product Development			8.380	9.993		33.291		31.164		CONT	CONT	CONT
Remarks:												
Technical Data												
GFE				0.600								
Subtotal Support			0.000	0.600		0.000		0.000		0.000	0.000	
Remarks:												

R-1 SHOPPING LIST - Item No. 85 - 24 of 85 -31

Exhibit R-3, Project Cost Analysis
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CLASSIFICATION:

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Exhibit R-3 Cost Analysis (page 2)									DATE: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4			PROGRAM ELEMENT Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Naval Fires Network/32927/32871				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Target Value of Contract
Developmental Test & Evaluation										
Operational Test & Evaluation										
Tooling										
GFE										
Subtotal T&E			0.000	0.000		0.000		0.000		
Remarks:										
Contractor Engineering Support					N/A					
Government Engineering Support					N/A					
Program Management Support	VAR	VARIOUS	1.020	0.172	N/A	0.800	10/01	3.400	10/02	N/A
Travel	PD	NAVSEA HQ	0.100	0.150	N/A	0.100	VAR	0.200	VAR	N/A
Labor (Research Personnel)										
Overhead										
Subtotal Management			1.120	0.322		0.900		3.600		
Remarks:										
Total Cost			9.500	10.915		34.191		34.764		CONT
Remarks:										

R-1 SHOPPING LIST - Item No. 85 - 25 of 85 - 31

Exhibit R-3, Project Cost Analysis

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(Exhibit R-3, page 25 of 31)

CLASSIFICATION:

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)							DATE: February 2002					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/ERF,D			Land Attack Technology/0603795N			Naval Fires Network/						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target of Contract
System Build	WR/MIPR	SAF/FMB/OLE (Air Force)				42.183						
Modify System GFE	WR/MIPR	SAF/FMB/OLE (Air Force)				12.052						
Training	WR/MIPR	SAF/FMB/OLE (Air Force)				6.026						
Installation	WR	NSWC PHD, Pt. Hueneme, CA				0.470						
LOE/FBE "I"	CPFF/IF/AF	VARIOUS										
	WR	VARIOUS										
AOA	WR	VARIOUS										
Primary Hardware Development	CPFF/IF/AF	VARIOUS										
	WR/MIPR	SAF/FMB/OLE (Air Force)										
Primary Software Development	CPFF/IF/AF	VARIOUS										
	WR/MIPR	SAF/FMB/OLE (Air Force)										
Testing	CPFF/IF/AF	VARIOUS										
	WR/MIPR	SAF/FMB/OLE (Air Force)										
Development of JTAAC	MIPR	JHU/APL				3.000	N/A					
TDM	WR	NAWC China Lake										
Training/ Training Syst. Development	CPFF/IF/AF	VARIOUS										
X, Ku, PAA Development	CPFF/IF/AF	VARIOUS										
Acquisition Planning	WR	NSWC Dahlgren, VA										
Subtotal Product Development												
Remarks:												
Technical Data												
GFE												
Subtotal Support						63.731						
Remarks:												

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CLASSIFICATION:

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 2)										DATE: February 2002
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/ERF,D			PROGRAM ELEMENT Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Naval Fires Network/				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Target Value of Contract
Developmental Test & Evaluation										
Operational Test & Evaluation										
Tooling										
GFE										
Subtotal T&E										
Remarks:										
Engineering/Technical Support						9.729	N/A			
Program Management Support										
Travel										
Labor (Research Personnel)										
Overhead										
Subtotal Management						9.729				
Remarks:										
Total Cost						73.460				
Remarks:										

R-1 SHOPPING LIST - Item No. 85 - 27 of 85 - 31

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Exhibit R-3, Project Cost Analysis

(Exhibit R-3, page 27 of 31)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification					DATE:						
					January 200		February 2002				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4			Land Attack Technology/06037951		PROJECT NAME AND NUMBER Integrated DeepWater System/39053						
COST (\$ in Millions)			FY 2001	FY 2002*	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	ost to Comple	Total Cost
Project Cost			0.000	2.081	0.000	0.000	0.000	0.000	0.000	CONT	CONT
RDT&E Articles Qty											
*Funding includes FY2002 IDS Congressional Add - \$2.081M											
<p>A. (U) Mission Description and Budget Item Justification: These funds provide for evaluation of NDI Intermediate Caliber Gun Systems for application in USN Surface Combatants and USCG Cutters. The evaluation effort will include reliability demonstrations, maintainability demonstrations, gun system firing exercises and selected munition evaluations.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2001 ACCOMPLISHMENTS: N/A</p> <p>2. (U) FY 2002 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$.880) Intermediate Caliber gun system reliability/maintainability demonstrations. - (U) (\$.556) Intermediate caliber munition evaluation. - (U) (\$.645) Gun System firing exercises. <p>3. (U) FY2003 PLAN: N/A</p> <p>B. (U) Other Program Funding Summary: N/A</p> <p>C. (U) Acquisition Strategy: The Naval Surface Warfare Center, Port Hueneme Division, Louisville Detachment, is to develop an evaluation plan with demonstration activity to be conducted at the NSWC Louisville facility and the NSWC Dahlgren facility. Upon completion of the government conducted evaluation process, the USN will identify the appropriate ICGS for application in USN and USCG ships. The ICGS evaluation is to be conducted by NSWC since they are responsible for all USN gunnery.</p>											

CLASSIFICATION:

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EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2002
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4	PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N	PROJECT NAME AND NUMBER Integrated Deep Water System Program/39053
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E. (U) Schedule Profile

	FY02						
	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
Integrated Deep Water System Program							
Program Planning	△————▽						
Reliability Demo		△————▽					
Maintainability Demo			△————▽				
Gun Firing Demo					△————▽		
Munitions Evaluation						△————▽	
Prepare Report							△————▽

R-1 SHOPPING LIST - Item No. 85 - 29 of 85 -31

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 29 of 31)

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CLASSIFICATION:

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)									DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4			PROGRAM ELEMENT Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Integrated Deep Water System Program/39053						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target of Contract
IDS Demonstration	WR	NSWC, Louisville	0.000	0.000	N/A	1.980	03/02	0.000	N/A	CONT	CONT	N/A
Subtotal Demonstration			0.000	0.000		1.980		0.000	N/A	CONT	CONT	CONT
Remarks:												
Technical Data												
GFE												
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												

R-1 SHOPPING LIST - Item No. 85 - 30 of 85 - 31

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 30 of 31)

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CLASSIFICATION:

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 2)									DATE: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4			PROGRAM ELEMENT Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Integrated Deep Water System Program/39053				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Target Value of Contract
Developmental Test & Evaluation										
Operational Test & Evaluation										
Tooling										
GFE										
Subtotal T&E			0.000	0.000		0.000		0.000		
Remarks:										
Contractor Engineering Support										
Government Engineering Support										
Program Management Support	VAR	VARIOUS	0.000	0.000	N/A	0.076	03/02	0.000	N/A	N/A
Travel	PD	NAVSEA HQ	0.000	0.000	N/A	0.025	03/02	0.000	N/A	N/A
Labor (Research Personnel)										
Overhead										
Subtotal Management			0.000	0.000		0.101		0.000		
Remarks:										
Total Cost			0.000	0.000		2.081		0.000		CONT
Remarks:										

R-1 SHOPPING LIST - Item No. 85 - 31 of 85 - 31

Exhibit R-3, Project Cost Analysis

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