

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification					DATE: June 2001					
APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE							
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4			Land Attack Technology/0603795N							
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002							
Total PE Cost	129.300	138.956	130.993							
NSFS/32156/32624*	66.183	58.428	42.679							
ALAM/32324	2.475	8.925	0.000							
NFCS/32325	24.599	48.575	48.835							
LASM/K2409	20.676	22.035	34.483							
NSWC Continuous Processor/K2771 **	5.867	0.000	0.000							
NFN/32927 ***	9.500	0.993	4.996							
Quantity of RDT&E Articles & Cost (see attached projects)										
* Funding includes the following Congressional adds for ERGM Projects 32624/K2624: FY 2000 \$9.695M; FY 2000 ERGM BAA \$4.961M; FY 2001 \$6.951M										
** FY 2000 Congressional add for Continuous Processor Project K2771, Naval Surface Warfare Center, Indian Head										
*** Funding includes the following adds for Naval Fires Network Project 32927/K2927: FY 2000 Omnibus ATR \$9.5M; FY 2001 Congressional add \$.993M										
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 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 Advance Land Attack Missile (ALAM) (Project 32324) is 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 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. In FY 2000 this program element included a Congressional addition for the Continuous Processor, Naval Surface Warfare Center, Indian Head (NSWC IH) (Project K2771). The continuous processor program supports the advancement and implementation of a lower cost, safer, and less polluting technology for the manufacturing of energetics that will benefit many Navy systems that rely on energetic materials to meet their operational requirements.										

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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 style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: right;"><u>FY 2000</u></th> <th style="text-align: right;"><u>FY 2001</u></th> <th style="text-align: right;"><u>FY 2002</u></th> </tr> </thead> <tbody> <tr> <td>(U) FY 2001 President's Budget:</td> <td style="text-align: right;">116.839</td> <td style="text-align: right;">143.044</td> <td style="text-align: right;">125.772</td> </tr> <tr> <td>(U) Appropriated Value:</td> <td style="text-align: right;">117.489</td> <td style="text-align: right;">140.244</td> <td></td> </tr> <tr> <td>(U) Adjustment to FY 2000/2001 Appropriated Value</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">FY 2001 President's Budget:</td> <td style="text-align: right;">11.811</td> <td style="text-align: right;">-1.288</td> <td style="text-align: right;">5.221</td> </tr> <tr> <td>(U) FY 2002 PRES Budget:</td> <td style="text-align: right;">129.300</td> <td style="text-align: right;">138.956</td> <td style="text-align: right;">130.993</td> </tr> </tbody> </table> <p>Funding:</p> <p>FY 2000: Adjustments due to: Across-The-Board reductions (-\$.649M), SBIR Tax (-\$.327M), Mid-Year Review Adj. (+\$3.025M), Misc Realignment/Actuals (-\$.256M), ALAM Add (+\$.975M), Proportionate Recission Adj. (-\$.457M), and NFN Omnibus ATR (+\$9.500M).</p> <p>FY 2001: Adjustments due to: Gov't Wide Rescission (-\$.306M), and .7% Pro-Rata Reductions (-\$.982M).</p> <p>FY 2002: Adjustments due to: ERGM add (+\$10.000M), ALAM reduction (-\$33.135M), NFCS adj. (+\$8.300M), LASM adj. (+\$15.300M), NFN add (+\$5.000M), Final POM02 Balance reductions (-\$.161M), Non Pay Inflation Adj. (+.176M), NWCF Rate Reductions (-\$.684M), and Program Supp (+\$.425M).</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 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 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 moved 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 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 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	(U) FY 2001 President's Budget:	116.839	143.044	125.772	(U) Appropriated Value:	117.489	140.244		(U) Adjustment to FY 2000/2001 Appropriated Value				FY 2001 President's Budget:	11.811	-1.288	5.221	(U) FY 2002 PRES Budget:	129.300	138.956	130.993
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>																							
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Exhibit R-2, RDT&E Budget Item Justification

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EXHIBIT R-2a, RDT&E Project Justification					DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4		Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Naval Surface Fire Support/32156/32624				
COST (\$ in Millions)	FY 2000*	FY 2001**	FY 2002						
Project Cost	66.183	58.428	42.679						
RDT&E Articles Qty									
<p>* Funding includes the following Congressional Adds for ERGM Project K2624: FY 2000 \$9.695M; FY 2000 ERGM BAA \$4.961M</p> <p>** Funding includes FY 2001 ERGM Congressional add \$6.951M</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 transition of ATDs and P³Is into the NSFS envelope.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2000 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$45.716) Continued development of EX-171 EDMs for ERGM. Continue rocket motor testing and component integration. - (U) (\$ 3.961) ERGM Broad Agency Announcement. - (U) (\$ 1.612) Continued development of EX-167 Propelling Charge. - (U) (\$11.829) Continued development and testing of 5" MK 45 Modification and GFP preparation. - (U) (\$ 2.565) Continued development and testing of the Gun Fire Control modification and required interfaces. - (U) (\$ 0.500) Continued development of the Micro-Electro-Mechanical System (MEMS). <p>2. (U) FY 2001 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$39.361) Begin transition from design to validation and test of ERGM design. Conduct program maneuver flights of EDM ERGMs. - (U) (\$ 6.951) ERGM Broad Agency Announcement. - (U) (\$ 1.610) Begin transition from development to validation of EX-167 Propelling Charge. - (U) (\$ 8.371) Continue development and testing of 5" MK 45 modification and GFP preparation. - (U) (\$ 1.292) Continue development and testing of the Gun Fire Control Modification and required interfaces. - (U) (\$.843) Portion of extramural program reserved for Small Business Innovation Research Assessment in accordance with 15 USC 638. 									

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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 Surface Fire Support/32156/32624																																															
<p>3. (U) FY 2002 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$34.038) Continue development of EX-171 EDMs for ERGM. Continue rocket motor testing and component integration. - (U) (\$ 1.144) Continue development of EX-167 Propelling Charge. - (U) (\$ 6.488) Continue development and testing of 5" MK 45 modification and GFM preparation. Continue test firing of the modification. - (U) (\$ 1.009) Continue development and testing of the Gun Fire Control Modification and required interfaces. <p>B. (U) Other Program Funding Summary:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY 2000</u></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>FY 2002</u></th> <th style="text-align: center;"><u>FY 2003</u></th> <th style="text-align: center;"><u>FY 2004</u></th> <th style="text-align: center;"><u>FY 2005</u></th> <th style="text-align: center;"><u>FY 2006</u></th> <th style="text-align: center;"><u>FY 2007</u></th> <th style="text-align: center;"><u>To Complete</u></th> <th style="text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>PAN,MC BL, 025300</td> <td style="text-align: right;">2.984</td> <td style="text-align: right;">5.670</td> <td style="text-align: right;">5.151</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">CONT.</td> <td style="text-align: center;">CONT.</td> </tr> <tr> <td>WPN BLI:4217, SBHD A4E5</td> <td style="text-align: right;">26.359</td> <td style="text-align: right;">2.756</td> <td style="text-align: right;">26.275</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">CONT.</td> <td style="text-align: center;">CONT.</td> </tr> <tr> <td>SCN SBHD A224</td> <td style="text-align: right;">35.228</td> <td style="text-align: right;">36.241</td> <td style="text-align: right;">24.868</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">CONT.</td> <td style="text-align: center;">CONT.</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.</p>									<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>	PAN,MC BL, 025300	2.984	5.670	5.151						CONT.	CONT.	WPN BLI:4217, SBHD A4E5	26.359	2.756	26.275						CONT.	CONT.	SCN SBHD A224	35.228	36.241	24.868						CONT.	CONT.
	<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>																																									
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EXHIBIT R-2a, RDT&E Project Justification

DATE:

June 2001

APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT NAME AND NUMBER

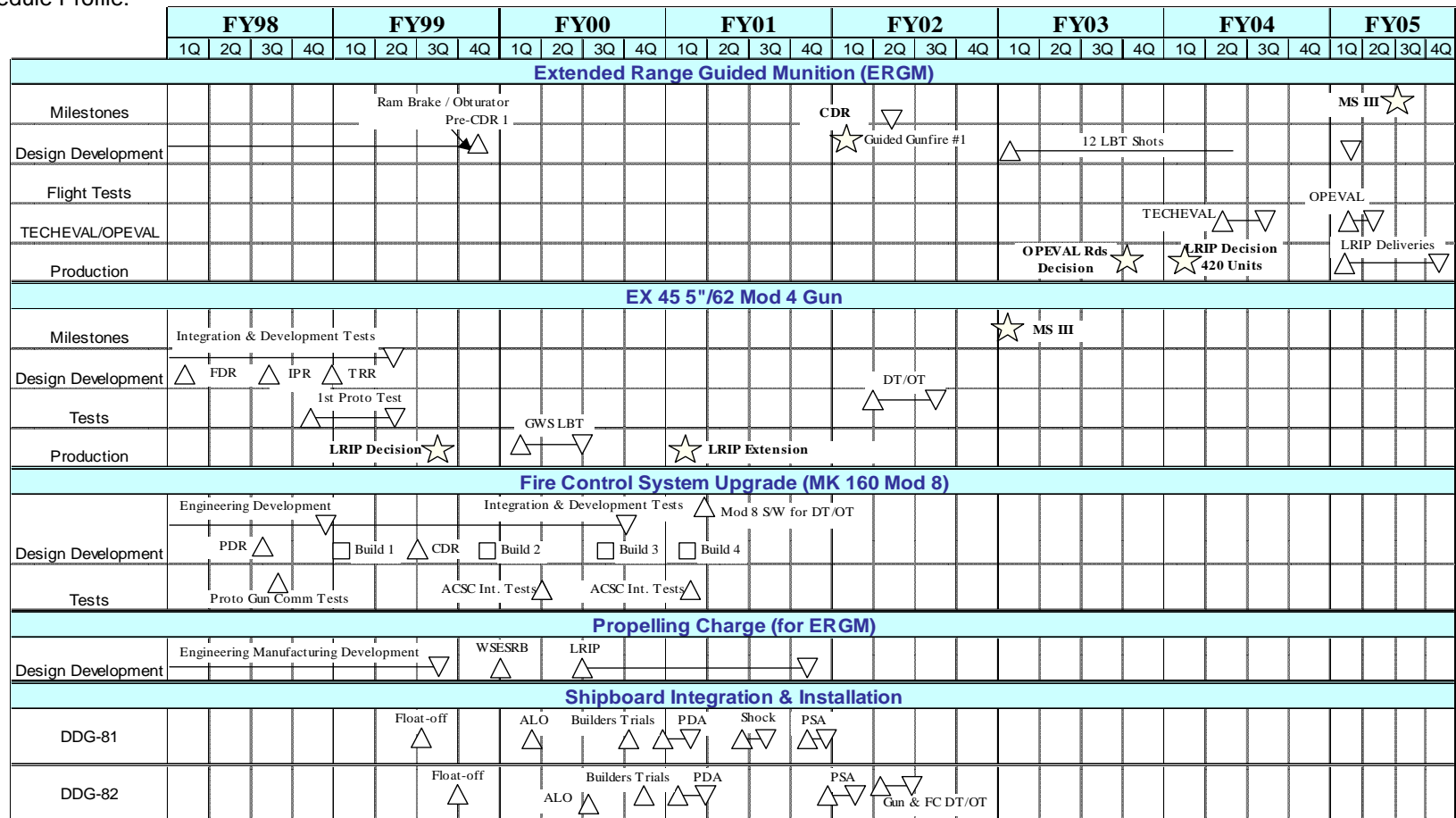
PROJECT NAME AND NUMBER

RDT&E, N/BA-4

Land Attack Technology/0603795N

Naval Surface Fire Support/32156/32624

D. (U) Schedule Profile:



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Exhibit R-2a, RDT&E Project Justification

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Exhibit R-3 Cost Analysis (page 1)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Naval Surface Fire Support/32156/32624						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 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	43.824	6.500	12/99	4.400	11/00	2.700	11/01	CONT	CONT	57.424
	CPAF/IF	Raytheon, Tucson, AZ	58.912	30.395	Various	26.000	11/00	19.815	11/01	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		0.000		0.000		CONT	CONT	7.500
ERGM BAA	VAR	Miscellaneous	0.000	3.961	Various	6.951	N/A	0.000	N/A	10.600	10.600	10.600
MEMS	VAR	Miscellaneous	1.500	0.500	Various	0.000	N/A	0.000	N/A	CONT	CONT	N/A
Systems Engineering	VAR	Miscellaneous	41.307	2.669	11/99	1.642	11/00	1.643	11/01	CONT	CONT	N/A
Award Fees	CPAF/IF	Raytheon, Tucson, AZ	1.123	0.000	Various	0.000	N/A	1.185	06/02	CONT	CONT	4.156
Subtotal Product Development			247.915	44.025		38.993		25.343		CONT	CONT	CONT
Remarks: The budget for each development contract is higher than the target value based on the program managers estimate of what will be needed to cover changes to requirements and cost growths. Program restructured in FY00.												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support	WR	NSWC		2.752	11/99	2.131	11/00	2.077	11/01	CONT	CONT	N/A
Configuration Management												
Technical Data												
GFE												
Subtotal Support			0.000	2.752		2.131		2.077		CONT	CONT	CONT

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Naval Surface Fire Support/32156/32624						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC		8.654	11/99	8.474	11/00	7.170	11/01	CONT	CONT	N/A
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			0.000	8.654		8.474		7.170		CONT	CONT	N/A
Remarks:												
Contractor Engineering Support												
Government Engineering Support	WR	NSWC		5.392	11/99	4.304	11/00	3.435	11/01	CONT	CONT	N/A
Program Management Support	WR	Various		5.255	11/99	4.426	11/00	4.554	11/01	CONT	CONT	N/A
Travel	PD	NAVSEA HQ	0.523	0.105	Various	0.100	VAR	0.100	VAR	CONT	CONT	N/A
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.523	10.752		8.830		8.089		CONT	CONT	N/A
Remarks:												
Total Cost			248.438	66.183		58.428		42.679		CONT	CONT	CONT
Remarks:												

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Exhibit R-3, Project Cost Analysis
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EXHIBIT R-2a, RDT&E Project Justification					DATE: June 2001				
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 2000	FY 2001	FY 2002						
Project Cost	2.475	8.925	0.000						
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 is 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 shall be introduced into the DD21 Land Attack Destroyer to supplement its operational Mission Needs Statement. The ALAM will exploit upcoming technologies to service high threat mobile, stationary and hardened targets during all stages of conflict. It will be compatible with and integrated into future theater level command, control and other support weapons and systems.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2000 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$2.475) Performed two Warfare Analysis Laboratory Exercises (WALEX) at JHU/APL to determine operator (Navy and Marine Corps) requirements. FIRESIM simulation data and funding provided to support ALAM analysis. Completed the Broad Agency Announcement (BAA), analyzed the 17 white papers (industry concepts) and met with companies proposing system solutions. Completed Milestone 0 and authorized to proceed to Milestone I. Began work to complete Milestone I exit criteria documentation. <p>2. (U) FY 2001 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$8.787) Complete Analysis of Alternatives (AoA): Initiate concept development; Plan for Program Definition and Risk Reduction (PDRR); Accomplish Milestone I. - (U) (\$.138) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15SC 638. <p>3. (U) FY 2002 PLAN: N/A</p>									

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER				PROJECT NAME AND NUMBER			
RDTE&E, N/BA-4	Land Attack Technology/0603795N				Advanced Land Attack Missile/32324			
D. (U) Schedule Profile:								
Fiscal Year	99	00	01	02	03	04	05	06
Quarter	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 I  MS II 							
Analysis of Alternatives	 — 18 months — 							
Program Definition and Risk Reduction	 —   — 							
EMD	 —							

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Exhibit R-3 Cost Analysis (page 1)								DATE: June 2001				
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 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target of Contract
Primary Hardware Dev Phase I & II	C/CP	ALAM Industry Team				3.146	10/00 & 3/01					
Ancillary Hardware Development												
Systems Engineering	WR	NSWC, Dahlgren, VA	0.119	0.447		1.404	10/00			CONT	CONT	
	SS/CPFF	JHU/APL, Laurel, MD	0.126	1.214		1.500	10/00			CONT	CONT	
	WR	NAWC, China Lake, CA	0.000	0.000		1.404	10/00			CONT	CONT	
	WR	CNA, Alexandria, VA	0.090	0.513		0.000				CONT	CONT	
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.335	2.174		7.454		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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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001				
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 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 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	0.166	0.301		1.471	11/00	0.000				
Travel	PD	NAVSEA HQ	0.000	0.000		0.000		0.000				
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.166	0.301		1.471		0.000		CONT	CONT	
Remarks:												
Total Cost			0.501	2.475		8.925		0.000		CONT	CONT	
Remarks:												

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Exhibit R-3, Project Cost Analysis

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							June 2001			
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 2000	FY 2001	FY 2002							
Project Cost	24.599	48.575	48.835							
RDT&E Articles Qty										
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 will be conducted during FY 2000 and FY 2001.										
(U) PROGRAM ACCOMPLISHMENTS AND PLANS:										
1. (U) FY 2000 ACCOMPLISHMENTS:										
- (U) (\$13.089) 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) (\$ 5.880) Support hardware configuration to support NFCS implementation. Support Developmental Testing (DT) Validation.										
- (U) (\$ 1.930) Technical Direction Agent support, joint requirements investigation, Concept of Operations (CONOPs) scenario development.										
- (U) (\$ 1.700) C4I and combat system interface investigation and analysis to include BFTT, Link 16, TTWCS and other developing C4I system and technology.										
- (U) (\$ 2.000) Developmental test and evaluation and logistic support elements development.										
2. (U) FY 2001 PLAN:										
- (U) (\$15.750) 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) (\$ 6.198) 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) (\$ 3.433) 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.										
- (U) (\$ 0.915) Portion of extramural program reserved for Small Business Innovation Research Assessment in accordance with 15 USC 6										

R-1 SHOPPING LIST - Item No. 84 - 12 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 12 of 30)

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EXHIBIT R-2a, RDT&E Project Justification							DATE: June 2001																																									
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>3. (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. - (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) (\$12.200) LAM Fire Control system engineering and software development including interface development with NFCS, GPS and other weapon systems. - (U) (\$ 2.500) LAM Fire Control Program management and logistic support elements development. - (U) (\$ 0.500) LAM Fire Control development test and evaluation. <p>B. (U) Other Program Funding Summary:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;">FY2000</th> <th style="width: 10%;">FY2001</th> <th style="width: 10%;">FY 2002</th> <th style="width: 10%;">FY 2003</th> <th style="width: 10%;">FY 2004</th> <th style="width: 10%;">FY 2005</th> <th style="width: 10%;">FY 2006</th> <th style="width: 10%;">FY 2007</th> <th style="width: 10%;">To Complete</th> <th style="width: 10%;">Total Cost CONT.</th> </tr> </thead> <tbody> <tr> <td>OPN</td> <td>BLI</td> <td>511200</td> <td></td> <td></td> <td></td> <td>.600</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="13">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>													FY2000	FY2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Cost CONT.	OPN	BLI	511200				.600							CONT.												
			FY2000	FY2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Cost CONT.																																				
OPN	BLI	511200				.600																																										
CONT.																																																

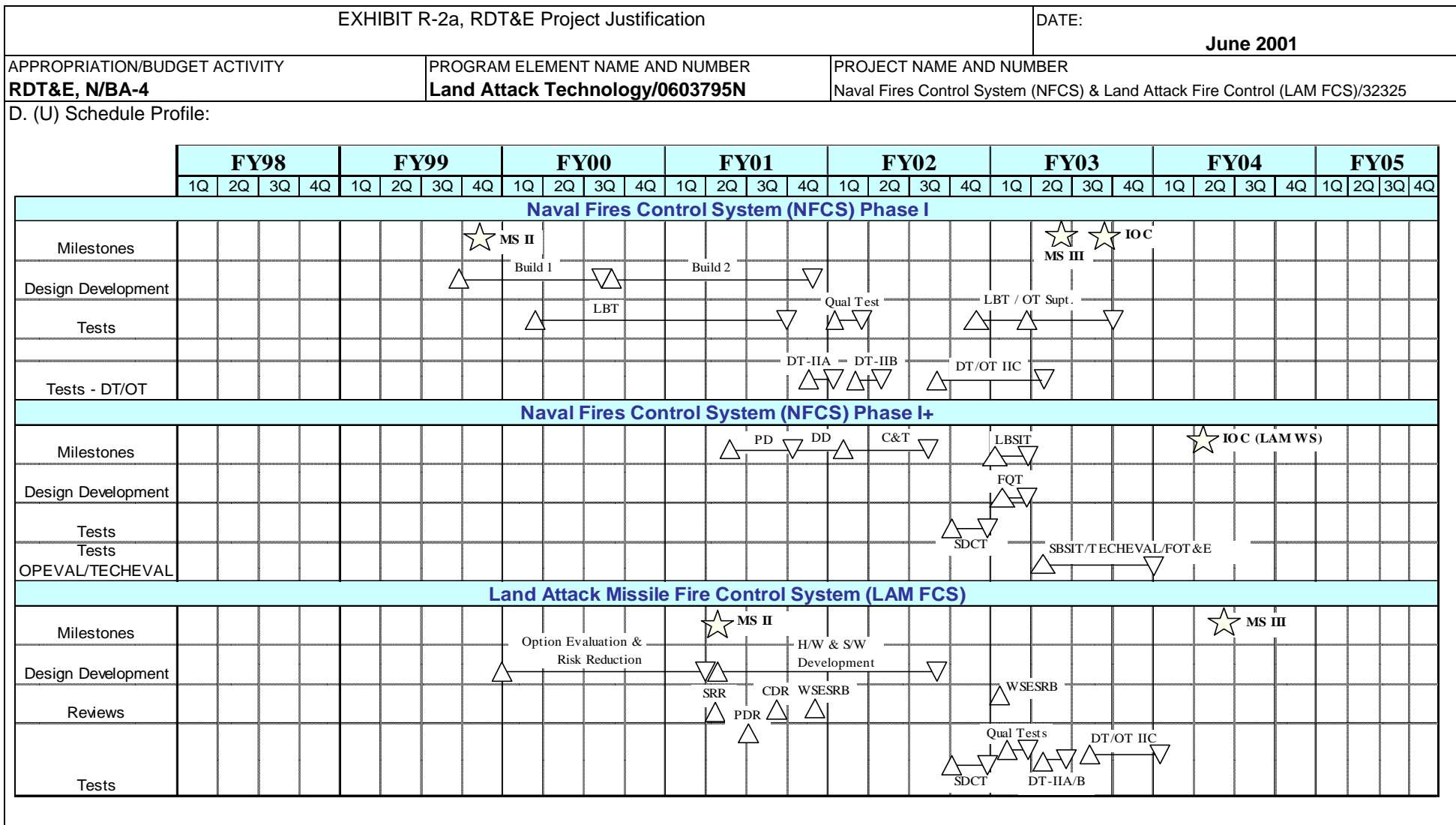
R-1 SHOPPING LIST - Item No. 84 - 13 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 13 of 30)

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R-1 SHOPPING LIST - Item No. 84 - 14 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 14 of 30)

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Exhibit R-3 Cost Analysis (page 1)								DATE: June 2001				
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 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Software Development	SS/CPAF	GDIS, Arlington, VA	6.904	8.473	11/99	12.533	11/00	12.960	11/01	CONT	CONT	TBD
	WR	NSWC, Dahlgren, VA	1.000	1.300	11/99	1.600	10/00	1.600	10/01	CONT	CONT	
	VAR	VARIOUS	0.919	0.700	02/00	0.400	11/00	0.400	11/01	CONT	CONT	
Systems Engineering	WR	SSC/SD	1.500	1.451	11/99	1.700	10/00	1.500	10/01	CONT	CONT	
	SS/CP	VITRO	0.300	0.300	11/99	0.300	11/00	0.300	11/01	CONT	CONT	
	VAR	VARIOUS	1.104	0.700	11/99	0.582	Various	0.582	Various	CONT	CONT	
Ancillary Harware Development	WR	NUWC, Keyport Division	1.000	5.100	11/99	4.484	10/00	2.517	10/01	CONT	CONT	
	WR	NSWC, Dahlgren, VA	1.000	1.100	11/99	1.200	10/00	1.200	10/01	CONT	CONT	
	VAR	VARIOUS	2.028	0.513	11/99	0.411	10/00	0.411	10/01	CONT	CONT	
Systems Engineering	WR	NSWC, Dahlgren, VA	1.339	1.562	11/99	1.200	10/00	1.200	10/01	CONT	CONT	
LAM FC Hardware/Software Dev	SS/CPFF	LM/Baltimore, MD	0.000	0.000		5.000	11/00	5.400	11/01	CONT	CONT	
	SS/CPAF	LM/MDS, Valley Forge, PA	0.000	0.000		9.500	11/00	10.600	11/01	CONT	CONT	
LAM FC Systems Engineering	SS/CPFF	JHU/APL	0.000	0.000		0.300	11/00	0.300	11/01	CONT	CONT	
	WR	NSWC, Dahlgren, VA	0.000	0.000		2.000	10/00	2.000	10/01	CONT	CONT	
Award Fees			0.396	1.300	TBD	3.265	TBD	3.265	TBD	CONT	CONT	
Subtotal Product Development			17.490	22.499		44.475	10/00	44.235	10/01	CONT	CONT	
Remarks:												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support	VAR	VARIOUS	0.670	1.500	Various	2.500	Various	2.500	Various	CONT	CONT	
Configuration Management												
Technical Data												
GFE												
Subtotal Support			0.670	1.500		2.500		2.500		CONT	CONT	
Remarks:												

R-1 SHOPPING LIST - Item No. 84 - 15 of 84 - 30

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 15 of 30)

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Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001				
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 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC/PT HUE, CA	0.300	0.500	11/99	1.500	10/00	2.000	10/01	CONT	CONT	
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			0.300	0.500		1.500		2.000		CONT	CONT	
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support												
Travel	PD	NAVSEA HQ	0.100	0.100	Various	0.100	Various	0.100	Various	CONT	CONT	
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.100	0.100		0.100		0.100		CONT	CONT	
Remarks:												
Total Cost			18.560	24.599		48.575		48.835		CONT	CONT	
Remarks:												

R-1 SHOPPING LIST - Item No. 84 - 16 of 84 - 30

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 16 of 30)

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CLASSIFICATION:

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EXHIBIT R-2a, RDT&E Project Justification					DATE: June 2001					
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)	FY 2000	FY 2001	FY 2002							
Project Cost	20.676	22.035	34.483							
RDT&E Articles Qty	8	5	9							
<p>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 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.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2000 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$ 0.700) Developed programmatic documentation and made other preparations for Milestone II decision and awarded E&MD contract. - (U) (\$ 4.000) Completed PDRR. Continued to define missile system technical requirements; analyzed, tested, and selected GPS/INS, HOB sensor(s), warhead mods, and other component hardware and software; developed ITEP, SRD, TLR, PIPS, CIPS, ICDs, and other preliminary drawings. - (U) (\$12.426) Integrated hardware and software, developed preliminary missile design, and applied results of early testing to verify and/or refine preliminary design. - (U) (\$ 3.550) Initiated procurement of long-lead material and developed initial test and evaluation plan for hardware and software. <p>2. (U) FY 2001 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$16.825) Complete mechanical/electrical designs, software design, round-level integration, and critical design review; initiate 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). - (U) (\$1.000) Complete software validation and verification. - (U) (\$3.750) Develop 6-DOF modeling and simulation and computer-in-the-loop facility. - (U) (\$0.460) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with USC 638. 										

R-1 SHOPPING LIST - Item No. 84 - 17 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 17 of 30)

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EXHIBIT R-2a, RDT&E Project Justification						DATE: June 2001																							
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N/BA-4		PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Land Attack Standard Missile K2409																								
<p>3. (U) FY 2002 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$10.750) Initiate fabrication of at-sea flight rounds (TECHEVAL/OPEVAL). - (U) (\$15.233) Continue ground testing and conduct five flight engineering tests at WSMR, evaluate results, and finalize plans for developmental at-sea flight testing. - (U) (\$3.300) Validate 6-DOF modeling and simulation with validation and verification. - (U) (\$5.200) Complete section level and missile level environmental qualification. <p>B. (U) Other Program Funding Summary:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Cost</u></th> <th style="text-align: center;"><u>FY 2000</u></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>FY 2002</u></th> <th style="text-align: center;"><u>FY 2003</u></th> <th style="text-align: center;"><u>FY 2004</u></th> <th style="text-align: center;"><u>FY 2005</u></th> <th style="text-align: center;"><u>FY 2006</u></th> <th style="text-align: center;"><u>FY 2007</u></th> <th style="text-align: center;">To <u>Complete</u></th> <th style="text-align: center;">Total <u>Cost</u></th> </tr> </thead> <tbody> <tr> <td>O&MN 1D3D, 0701113N</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0.003</td> <td style="text-align: center;">0.072</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">CONT</td> <td style="text-align: center;">CONT</td> </tr> </tbody> </table> <p>C. (U) Acquisition Strategy: Pre E&MD efforts have been 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 DT/OT of LASM. Existing GFE SM-2 Block II/III missiles will be refurbished and converted into Land Attack Missiles (SM-4). Refurbishment and conversions are "turn key" and do not involve separate installations.</p>								<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>	To <u>Complete</u>	Total <u>Cost</u>	O&MN 1D3D, 0701113N	0	0.003	0.072						CONT	CONT
<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>	To <u>Complete</u>	Total <u>Cost</u>																			
O&MN 1D3D, 0701113N	0	0.003	0.072						CONT	CONT																			

R-1 SHOPPING LIST - Item No. 84 - 18 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 18 of 30)

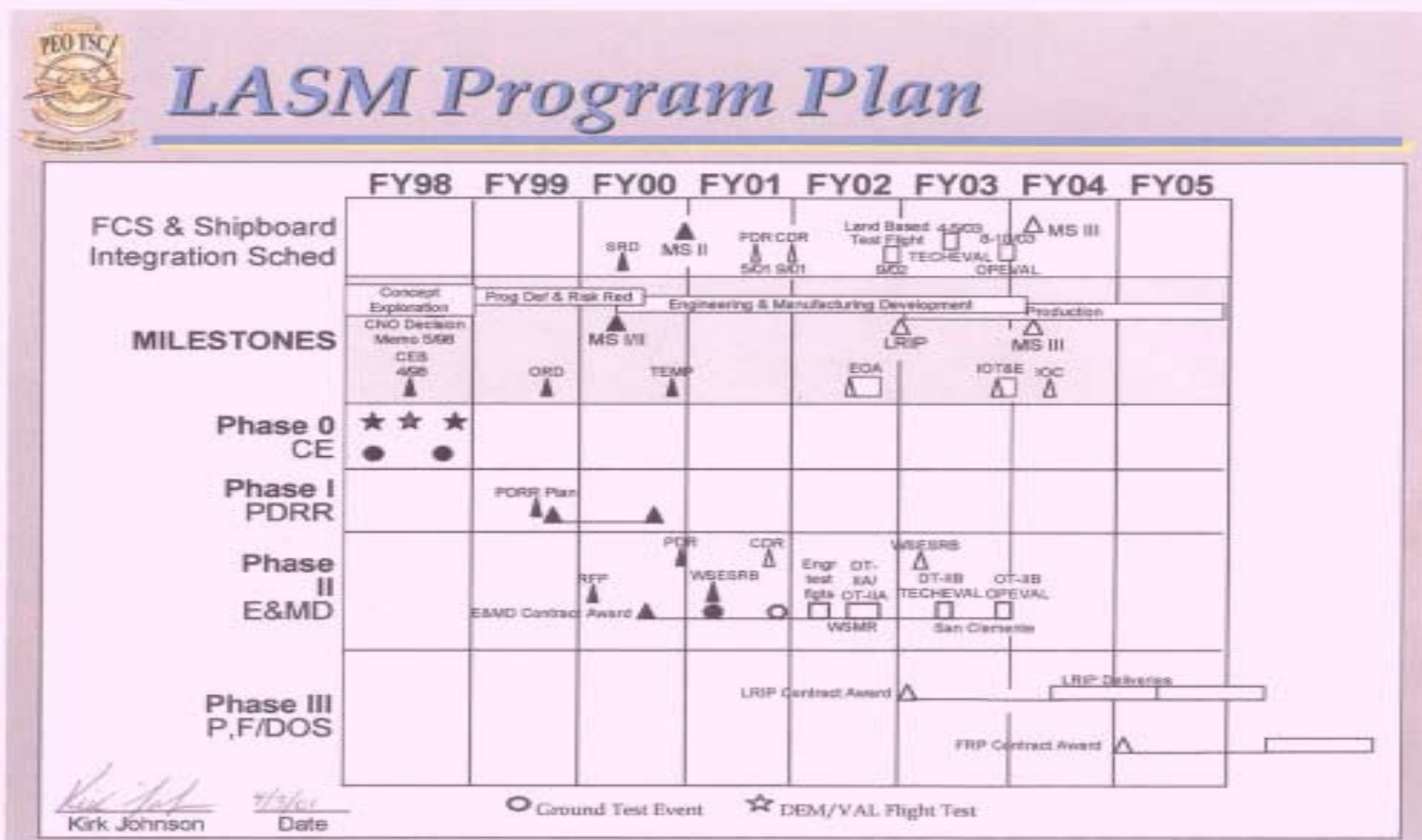
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EXHIBIT R-2a, RDT&E Project Justification		DATE: June 2001
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4	PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N	PROJECT NAME AND NUMBER Land Attack Missile/K2409

E. (U) Schedule Profile



R-1 SHOPPING LIST - Item No. 84 - 19 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 19 of 30)

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Exhibit R-3 Cost Analysis (page 1)						DATE: June 2001						
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4			PROGRAM ELEMENT Land Attack Technology/0603795N			PROJECT NAME AND NUMBER 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 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development												
Ancillary Hardware Development	WR	NSWC/Dahlgren, VA	1.225	1.600	12/99	2.750	10/00	1.600	10/01	2.208	9.383	
	WR	VAR	0.260	0.415	12/99	0.746	10/00	0.750	10/01	1.700	3.871	
Systems Engineering	WR	VAR	1.951	2.715	12/99	2.202	10/00	1.845	10/01	2.700	11.413	
	SS/CPAF	Raytheon Missile Systems, Tucson,	4.172	12.940	02/00	11.032	10/00	20.404	10/01	18.000	66.548	66.548
Award Fees			0.347	1.156	02/00	0.957	10/00	1.818	10/01	2.000	6.278	
Subtotal Product Development			7.955	18.826		17.687		26.417		26.608	97.493	
Remarks:												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support	WR	VARIOUS	0.090	0.220	12/99	0.220	10/00	0.240	10/01	0.800	1.570	
Configuration Management	WR	VARIOUS	0.135	0.330	12/99	0.330	10/00	0.360	10/01	1.000	2.155	
Technical Data												
GFE												
Subtotal Support			0.225	0.550		0.550		0.600		1.800	3.725	
Remarks:												

R-1 SHOPPING LIST - Item No. 84 - 20 of 84 - 30

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 20 of 30)

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CLASSIFICATION:

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Exhibit R-3 Cost Analysis (page 2)						DATE: June 2001						
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4			PROGRAM ELEMENT Land Attack Technology/0603795N			PROJECT NAME AND NUMBER 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 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWC/WD, White Sands	0.700	0.250	12/99	0.500	10/00	3.600	10/01	0.100	5.150	
	WR	VAR	0.095	0.140	12/99	0.180	10/00	0.124	10/01	0.300	0.839	
Operational Test & Evaluation	WR	NAWC/AD, Pt Mugu, CA	0.050	0.150	12/99	0.350	10/00	0.450	10/01	3.000	4.000	
	WR	VAR	0.030	0.060	12/99	0.120	10/00	0.280	10/01	1.000	1.490	
Tooling												
GFE												
Subtotal T&E			0.875	0.600		1.150		4.454		4.400	11.479	
Contractor Engineering Support	VAR	VAR	0.425	0.550	12/99	2.196	10/00	2.547	10/01	2.900	8.618	
Government Engineering Support												
Program Management Support	VAR	VAR	0.613	0.100	12/99	0.392	10/00	0.400	10/01	0.800	2.305	
Travel	PD	NAVSEA HQ	0.025	0.050	VAR	0.060	VAR	0.065	VAR	0.300	0.500	
Labor (Research Personnel)												
Overhead												
Subtotal Management			1.063	0.700		2.648		3.012		4.000	11.423	
Remarks:												
Total Cost			10.118	20.676		22.035		34.483		36.808	124.120	
Remarks:												

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Exhibit R-3, Project Cost Analysis

(Exhibit R-3, page 21 of 30)

CLASSIFICATION:

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EXHIBIT R-2a, RDT&E Project Justification						DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N		PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Continuous Processor K2771					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002							
Project Cost	5.867	0.000	0.000							
RDT&E Articles Qty										
<p>A. (U) Mission Description and Budget Item Justification: Development of technology to manufacture propellants and explosives using continuous processing methods will result in lower costs for the energetic materials used in Naval Guns. Prior investments in this technology have established the fundamental science and engineering supporting the feasibility of this process to significantly reduce the cost to produce energetics, to reduce waste and pollution during manufacturing, improve the safety of operations and to improve product quality and reproducibility. The efforts under this project was directed towards scale-up of the continuous processing technology, demonstration of the benefits, and the technology transition to industry for the manufacture of gun propellants and other energetics.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2000 ACCOMPLISHMENTS AND PLANS:</p> <ul style="list-style-type: none"> (U) (\$5.867) Initiated process definition and design for a flexible capability to scale-up continuous processing technology. This included hazards and environmental analyses, design and acquisition of specific process equipment needed to demonstrate gun propellant manufacture, and processing technology development and support. <p>2. (U) FY 2001 PLAN: N/A</p> <p>3. (U) FY 2002 PLAN: N/A</p>										

R-1 SHOPPING LIST - Item No. 84 - 22 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 22 of 30)

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CLASSIFICATION:

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EXHIBIT R-2a, RDT&E Project Justification		DATE: June 2001
APPROPRIATION/BUDGET ACTIVITY RDTE, N	PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N	PROJECT NAME AND NUMBER Continuous Processor K2771
<p>B. (U) Other Program Funding Summary: Not Applicable</p> <p>C. (U) Acquisition Strategy: Not Applicable</p> <p>D. (U) Schedule Profile: Not Applicable</p>		

R-1 SHOPPING LIST - Item No. 84 - 23 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 23 of 30)

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CLASSIFICATION:

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Exhibit R-3 Cost Analysis (page 1)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N			Land Attack Technology/0603795N			Continuous Processor K2771						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 001 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Technology Development	WR	NSWC IHDIV	0.000	3.040	N/A	0.000	N/A	0.000	N/A	0.000	3.040	
Ancillary Hardware Development											0.000	
Systems Engineering											0.000	
Licenses											0.000	
Process equipment/tooling	C/FP	Various/TBD	0.000	2.827	N/A	0.000	Various	0.000	N/A		2.827	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			0.000	5.867		0.000		0.000		0.000	5.867	
Remarks:												
Development Support Equipment											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks: Categories do not apply												

R-1 SHOPPING LIST - Item No. 84 - 24 of 84 - 30

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 24 of 30)

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 2)										DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N			Land Attack Technology/0603795N			Continuous Processor K2771						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation											0.000	
Tooling											0.000	
GFE											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks: This is a non-ACAT program and a FY00 Congressional plus-up. DT and OT testing of energetics manufactured by this process will be conducted when those products are incorporated into a weapon systems development or product improvement program.												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support											0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost			0.000	5.867		0.000		0.000		0.000	5.867	
Remarks:												

R-1 SHOPPING LIST - Item No. 84 - 25 of 84 - 30

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 25 of 30)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification					DATE: June 2001					
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4		Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Naval Fires Network/32927					
COST (\$ in Millions)	FY 2000*	FY 2001**	FY 2002							
Project Cost	9.500	0.993	4.996							
RDT&E Articles Qty										

* FY 2000 Omnibus ATR for Naval Fires Network Project K2927 \$9.5M
** FY 2001 Congressional add for Naval Fires Network Project 32927 \$.993M

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.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 2000 ACCOMPLISHMENTS:

- (U) (\$6.810) Development of Coronado Build System.
- (U) (\$1.120) Program management support.
- (U) (\$1.000) Modified System Government Furnished Equipment.
- (U) (\$.400) Coronado Build System training.
- (U) (\$.170) Installation of System on the Coronado.

2. (U) FY 2001 PLAN:

- (U) (\$.993) Support of Limited Objective Experiment (LOE) and Fleet Battle Experiment India (FBE "I").
- (U) (\$.000) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

3. (U) FY 2002 PLAN:

- (U) (\$.947) Development of hardware for NFN.
- (U) (\$2.299) Development of software for NFN.
- (U) (\$.350) Testing of on-board and land-based facilities.
- (U) (\$.300) Development of Tactical Dissemination Module (TDM).
- (U) (\$.200) Acquisition Planning.
- (U) (\$.900) Program management support.

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE: June 2001
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
<p>B. (U) Other Program Funding Summary: N/A</p> <p>(U) Related RDT&E,N: 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>		

R-1 SHOPPING LIST - Item No. 84 - 27 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 27 of 30)

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification																DATE: June 2001							
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N/BA-4								PROGRAM ELEMENT NAME AND NUMBER Land Attack Technology/0603795N								PROJECT NAME AND NUMBER Naval Fires Network/32927							

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					Install △ 8		FBE (I) △ 2	△ 6																						
System Upgrade									△	→							▽													
CG Conversion System (Quantity)																	△ 1				△ 3					△ 3				

R-1 SHOPPING LIST - Item No. 84 - 28 of 84 - 30

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 28 of 30)

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)							DATE: June 2001					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Land Attack Technology/0603795N			Naval Fires Network/32927						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target of Contract
System Build	WR/MIPR	SAF/FMB/OLE (Air Force)	0.000	6.810	09/00	0.000	N/A	0.000	N/A	CONT	CONT	N/A
Modify System GFE	WR/MIPR	SAF/FMB/OLE (Air Force)	0.000	1.000	09/00	0.000	N/A	0.000	N/A	CONT	CONT	1.000
Training	WR/MIPR	SAF/FMB/OLE (Air Force)	0.000	0.400	09/00	0.000	N/A	0.000	N/A	CONT	CONT	0.400
Installation	WR	NSWC PHD, San Diego, CA	0.000	0.170	09/00	0.000	N/A	0.000	N/A	CONT	CONT	0.300
LOE/FBE "I"	CPFF/IF/AF	VARIOUS	0.000	0.000	N/A	0.300	11/00	0.000	N/A	CONT	CONT	0.300
	WR	VARIOUS	0.000	0.000	N/A	0.693	11/00	0.000	N/A	CONT	CONT	N/A
Primary Hardware Development	CPFF/IF/AF	VARIOUS	0.000	0.000	N/A	0.000	N/A	0.830	11/01	CONT	CONT	2.100
	WR/MIPR	SAF/FMB/OLE (Air Force)	0.000	0.000	N/A	0.000	N/A	0.117	11/01	CONT	CONT	N/A
Primary Software Development	CPFF/IF/AF	VARIOUS	0.000	0.000	N/A	0.000	N/A	2.040	11/01	CONT	CONT	2.100
	WR/MIPR	SAF/FMB/OLE (Air Force)	0.000	0.000	N/A	0.000	N/A	0.259	11/01	CONT	CONT	N/A
Testing	CPFF/IF/AF	VARIOUS	0.000	0.000	N/A	0.000	N/A	0.310	11/01	CONT	CONT	2.100
	WR/MIPR	SAF/FMB/OLE (Air Force)	0.000	0.000	N/A	0.000	N/A	0.040	11/01	CONT	CONT	N/A
TDM	WR	NAWC China Lake	0.000	0.000	N/A	0.000	N/A	0.300	11/01	CONT	CONT	N/A
P3I	WR	NSWC Dahlgren, VA	0.000	0.000	N/A	0.000	N/A	0.200	11/01	CONT	CONT	N/A
Subtotal Product Development			0.000	8.380		0.993		4.096		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. 84 - 29 of 84 - 30

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 29 of 30)

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-4			PROGRAM ELEMENT Land Attack Technology/0603795N			PROJECT NAME AND NUMBER Naval Fires Network/32927				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 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	1.020	09/00	0.000	N/A	0.800	10/01	N/A
Travel	PD	NAVSEA HQ	0.000	0.100	09/00	0.000	N/A	0.100	VAR	N/A
Labor (Research Personnel)										
Overhead										
Subtotal Management			0.000	1.120		0.000		0.900		
Remarks:										
Total Cost			0.000	9.500		0.993		4.996		CONT
Remarks:										

R-1 SHOPPING LIST - Item No. 84 - 30 of 84 - 30

UNCLASSIFIED**Exhibit R-3, Project Cost Analysis**

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