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CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification								DATE: June 2001			
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7						R-1 ITEM NOMENCLATURE 0204571N Consolidated Training Systems Development					
COST (\$ in Millions)	Prior Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Total PE Cost	52.672	36.853	36.774	22.407						Continuing	Continuing
21427/22449		**									
Surface Tactical Team Trainer (STTT)/Battle Force Tactical Trainer (W0431)		10.553	11.676	5.593						Continuing	Continuing
Tactical Aircrew Combat Training System (TACTS) (W0604)	*	52.672	0.987	1.569						Continuing	Continuing
Training Range and Instrumentation Development (TRIDS) (W1998)		0.145	1.741	3.600						Continuing	Continuing
Joint Tactical Combat Training System (JTCTS) (W2124)		14.472	10.163	0.000						Continuing	Continuing
Air Warfare Training Development (AWTD) (X1823)		2.061	2.134	1.904						Continuing	Continuing
Training and Modeling Systems (TMS)		8.635	9.491	11.310						Continuing	Continuing
Quantity of RDT&E Articles	Not applicable										
<p>* This amount includes FY90- FY99.</p> <p>** Control includes a FY 01 Congressional add for \$7.5M for BFTT which will be executed under 22449. FY 00 funding is identified under project 22449.</p> <p>***Control includes a FY01 Congressional add of \$4.0 million which will be executed under W2982.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>The STTT will develop the Battle Force Tactical Training (BFTT) System to provide realistic Combat System team training including a means to link surface ships together for coordinated unit and Battle Group level training using Distributed Interactive Simulation (DIS) and High Level Architecture (HLA) protocols. The Congressional add provides migration of BFTT software to Windows NT from UNIX OS. BFTT developed the BFTT Electronic Warfare Trainer (BEWT) and applicable BFTT System software to provide EW operator and team training for Fleet EW Systems.</p> <p>TACTS provides real-time monitoring and post-exercise debrief of aircrews flying on instrumented training ranges. This system is the primary training tool used by the Naval Strike and Air Warfare Center and the Marine Aviation Weapons and Tactics Squadron.</p> <p>The TRID program provides development of many range systems including range electronic warfare simulator, advanced weapons training systems, laser training systems, Large Area Tracking Range (LATR), combat training system improvements and shallow water range technology.</p>											

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<p>JTCTS is planned to provide U.S. Navy fleet deployable instrumentation for at sea surface, subsurface, air training and tactics development, and fixed/transportable air range instrumentation for U.S. Navy and U.S. Air Force air training and tactics development. The JTCTS program is in the process of realigning the acquisition strategy. This action is focused toward a contract award in FY02. The Navy, as the lead activity, will award an FY02 contract to satisfy an Air Force requirement. This summary reflects only the USN funding component of the JTCTS.</p> <p>The AWTD program provides development of many aviation training systems including mission rehearsal simulation technologies and the Aviation Training Technology Integration Facility (ATTIF).</p> <p>The TMS encompasses the requirements analysis and software development associated with the Navy's Maritime Development Agent function as part of the Joint Simulation System (JSIMS). The BFTT will develop the BFTT Electronic Warfare Trainer (BEWT) and applicable BFTT system software to provide EW operator and team training for Fleet EW Systems.</p> <p>(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it encompasses engineering and manufacturing development for upgrade of existing, operational systems.</p>		

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EXHIBIT R-2a, RDT&E Project Justification								DATE: June 2001			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME Program Element (PE) No. and Name 0204571N CTSD					PROJECT NUMBER AND NAME 21427 Surface Tactical Team Trainer (STTT)/22449 Battle Force Tactical Trainer (BFTT)					
COST (\$ in Millions)	Prior Years Cost	FY 2000 **	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	N/A	10.553	11.676	5.593	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
RDT&E Articles Qty											

**Includes project 22449.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Battle Force Tactical Training (BFTT) Program provides realistic joint warfare training across the spectrum of armed conflict; realistic unit level team training in all warfare areas; a means to link ships together which are in different homeports for coordinated training; external stimulation of shipboard training systems; and simulation of non-shipboard forces. BFTT uses a distributed architecture, integrating existing training systems, and uses Distributed Interactive Simulation (DIS) protocols, with planned migration to High Level Architecture (HLA). BFTT provides ships' Commanding Officers and Battle Group/Battle Force Commanders with the ability to conduct coordinated realistic, high stress, combat system team training as an integral part of the Afloat Training Organization. BFTT provides a baseline capability/system that meets the Operational Requirements Document (ORD). Stimulator/Simulators (STIM/SIM) provides standardized Radio Frequency (RF), Intermediate Frequency (IF), and/or Digital injection into surface ship radars and fire control systems for training of shipboard operators/teams as part of the BFTT System. The BFTT Electronic Warfare Trainer (BEWT) effort provides embedded operator and team electronic emissions recognition training capability, integrated into BFTT. BFTT software is being migrated from UNIX/TAC to a Windows-NT/PC Operating System (OS).

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 2000 ACCOMPLISHMENTS:

- (U) (\$0.852) BFTT - Initiated development of tactical link interface/simulation software and fleet-driven requirements into BFTT. Initiated development of stand-alone objective based training software for scenario development.
- (U) (\$2.421) HLA - Continued conversion of the DIS protocol based software to the HLA mandated architecture for the Scenario Generation and Control portion of the BFTT software in accordance with DoD directives.
- (U) (\$7.280) BFTT Windows NT - Continued migration of BFTT software elements to Windows-NT for UNIX Operating System (OS).

2. FY 2001 PLANS:

- (U) (\$2.663) BFTT - Continued development of link software, developing/integrating new software capabilities and automating debrief products.
- (U) (\$1.540) HLA - Continuing conversion of the DIS protocol based software to the HLA mandated architecture for the Entity Motioning and Modeling portion of the BFTT software in accordance with DoD directives.
- (U) (\$7.473) BFTT Windows NT - Completing migration of BFTT software elements to Windows-NT for UNIX Operating System (OS).

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME Program Element (PE) No. and Name 0204571N CTSD	PROJECT NUMBER AND NAME 21427 Surface Tactical Team Trainer (STTT)/22449 Battle Force Tactical Trainer (BFTT)
<p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS: CONTINUATION SHEET</p> <p>3. FY 2002 PLANS:</p> <ul style="list-style-type: none">- (U) (\$3.919) BFTT - Completing development of data link simulation software, develop/integrate new s/w capabilities and system interfaces, develop BG level Display and Debrief rqmts.- (U) (\$1.674) HLA - Complete conversion of the BFTT software to the existing HLA Standards. <p>4. FY 2003 PLANS:</p>		

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(U) B. PROGRAM CHANGE SUMMARY: (Show total funding, schedule, and technical changes for the program element that have occurred since the last President's submission.)											
		FY2000	FY2001	FY2002	FY2003						
(U) FY 2001 President's Budget:		11.083	4.196	5.679							
(U) Appropriated Value:		10.596	11.784								
(U) Adjustments to FY2000/2001 Appropriated Value/ FY2001 President's Budget		-0.043	-0.108	-0.086							
(U) FY 2002 PRES Budget Submit:		10.553	11.676	5.593							
CHANGE SUMMARY EXPLANATION:											
(U) Funding: The FY 2000 net decrease of (\$.043) thousand consists of the FY 2000 Actuals Adjustment of (\$.043) thousand. The FY 2001 net decrease of (\$.108) thousand consists of a (\$.082) thousand 7% Pro-rata recision, and a (\$.026) thousand Government-wide recision. The FY 2002 net decrease of (\$.086) thousand consists of a (\$.053) thousand PB Budget Years Baseline decrease, a NWFC rate decrease of (\$.044) thousand, and an \$.011 thousand program support increase. The FY 2003 net decrease of (\$.093) thousand consists of an (\$.085) thousand PB Budget Years Baseline decrease, the (\$.022) thousand NWFC rate decrease, a \$.012 thousand program support increase, and a \$.002 thousand non-pay purchases baseline increase.											
(U) Schedule: Not Applicable.											
(U) Technical: Not Applicable.											
(U) C. OTHER PROGRAM FUNDING SUMMARY:											
	<u>Line Item No. & Name</u>	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Cost
	OPN 276200	37.897	24.263	33.629						CONT.	CONT.

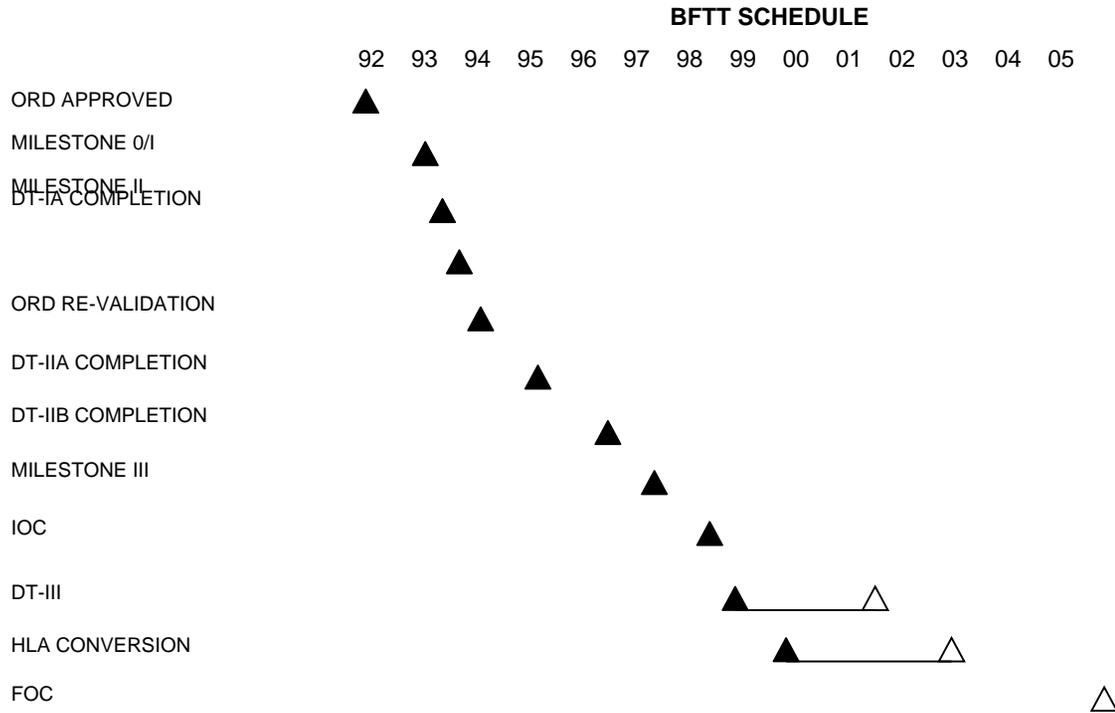
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME Program Element (PE) No. and Name 0204571N CTSD	PROJECT NUMBER AND NAME 21427 Surface Tactical Team Trainer (STTT)/22449 Battle Force Tactical Trainer (BFTT)

(U) D. ACQUISITION STRATEGY: * The BFTT Program is designated as an ACAT IV-M Program consisting of four (4) phases - Concept Exploration and Definition, Demonstration and Validation, Engineering and Manufacturing Development, and Production and Deployment.

(U) E. SCHEDULE PROFILE:



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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7			PROGRAM ELEMENT Program Element (PE) No. and Name 0204571N CTSD				PROJECT NUMBER AND NAME 21427 Surface Tactical Team Trainer (STTT)/22449 Battle Force Tactical Trainer (BFTT)					
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	*	AAI/MD & EWA/WV	11.514							0.000	11.514	11.514
Ancillary Hardware Development	WR	PHD/NSWC	1.000							0.000	1.000	1.000
Systems Engineering	**	PHD NSWC/NUWC/GSA	17.696	0.700		1.000		0.000		Continuing	Continuing	N/A
Licenses	WR/RCP	PHD NSWC	2.037	0.035		0.100		0.000		Continuing	Continuing	N/A
Tooling											0.000	
GFE			2.500							0.000	2.500	2.500
Award Fees			0.357							0.000	0.357	0.357
Subtotal Product Development			35.104	0.735		1.100		0.000		Continuing	Continuing	
Remarks: * AAI Contract Award 3/98 CPIF; EWA Contract Award 6/98 CPFF **WR/RCP/MIPR												
Development Support Equipment											0.000	
Software Development	*	PHDNSWC/NAWCTSD/GSA	26.210	10.506		2.868		0.000		Continuing	Continuing	N/A
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data	*	PHDNSWC/NAWCTSD/GSA	7.709	0.385		0.725		0.000		Continuing	Continuing	N/A
GFE											0.000	
Subtotal Support			33.919	10.891		3.593		0.000		0.000	48.403	
Remarks: *WR/RCP/MIPR												

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7			PROGRAM ELEMENT Program Element (PE) No. and Name 0204571N CTSD				PROJECT NUMBER AND NAME 21427 Surface Tactical Team Trainer (STTT)/22449 Battle Force Tactical Trainer (BFTT)					
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	*	NSWC Crane/PHD/NAWC	3.257	0.050		0.400		0.000		Continuing	Continuing	N/A
Operational Test & Evaluation											0.000	
Tooling											0.000	
GFE											0.000	
Subtotal T&E			3.257	0.050		0.400		0.000		0.000	3.707	
Remarks: *WR/RCP/MIPR **NSWC PHD/Crane/NAWC TSD/GSA												
Contractor Engineering Support											0.000	
Government Engineering Support	*	NSWC PHD/GSA	2.183			0.500		0.000		Continuing	Continuing	N/A
Program Management Support											0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			2.183	0.000		0.500		0.000		0.000	2.683	
Remarks: *WR/RCP/MIPR												
Total Cost			74.463	11.676		5.593		0.000		Continuing	Continuing	
Remarks:												

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N Consolidated Training Systems Development					PROJECT NUMBER AND NAME W0431 Tactical Aircrew Combat Training System (TACTS)					
COST (\$ in Millions)	Prior Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	52.672 *	0.987	1.569	0.000	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing
RDT&E Articles Qty											
<p>This amount includes FY90 - FY99.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project develops new TACTS capabilities primarily through the integration of additional types of aircraft and weapons. This requires development of new aircraft interfaces, weapons and countermeasures simulations, and modifications to displays. Software is also developed to produce computer generated Electronic Warfare (EW) threats to enhance the system's ability to provide training in a realistic EW environment. Various other system performance improvements are also developed to make the system more effective and reliable.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. FY 2000 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$.200) Weapons Integration - Completed development and integration of the Joint Stand-Off Weapon (JSOW) training capability for the F/A-18. - (U) (\$.662) System Upgrades- Continued development of block 5.2 software for Control and Computation Subsystem (CCS). Completed enhancements to Advance Display and Debriefing Subsystem (ADDS) in accordance with fleet requirements. Completed development and integration of A05 and K05 Aircraft Instrumentation Subsystem AIS/AIS internal (AISI) software variants. - (U) (\$.125) Studies/Analysis/T&E – Completed test procedures, testing, and acceptance of A05/K05 AIS/AISI upgrades. Completed test procedures, testing and acceptance of ADDS enhancements. <p>2. FY 2001 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$.587) Weapons Integration - Complete development and integration of block 5.2 CCS software. - (U) (\$.725) Systems Upgrades – Commence and complete development and integration of AIS A10 software. - (U) (\$.220) Studies/Analysis/T&E – Complete testing and acceptance of block 5.2 CCS software. Commence and complete testing and acceptance of AIS A10 software. - (U) (\$.037) Portion of extramural program reserved for Small Business Innovation Research Assessment in accordance with 15 USC 68. <p>3. FY 2002 PLANS: Not Applicable</p>											

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N Consolidated Training Systems Development	PROJECT NUMBER AND NAME W0431 Tactical Aircrew Combat Training System (TACTS)

(U) B. PROGRAM CHANGE SUMMARY:

	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>
(U) FY 2001 President's Budget:	2.732	1.585	
(U) Adjustments from the President's Budget:	-1.745	-0.016	0.000
(U) FY 2002/2003 President's Budget Submit:	0.987	1.569	

CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 2000 net decrease of \$1.745 million reflects a \$1.734 million decrease for reprioritization of requirements within the Navy and a \$.011 million decrease for a Congressional Recission. The FY2001 net decrease of \$.016 million reflects a \$.002 million decrease for a reprioritization of requirements within the Navy, a \$.011 million decrease for a Congressional reduction, and a \$.003 million decrease for a Congressional recission.

(U) Schedule: The following milestones have been changed due to program restructure:

From	To
A10 DT-II 4Q99/2Q00	A10 DT-II 2Q01/4Q01
Blk 5.2 DT-II 4Q99/2Q00	Blk 5.2 DT-II 1Q/01/4Q01
A05/K05 DT-II 2Q/3Q01	A05/K05 DT-II 2Q/00

Deleted
Blk 6.0 DT-II 2Q/3Q 01

(U) Technical: Not Applicable

(U) C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable

<u>Line Item No. & Name</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>

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N Consolidated Training Systems Development	PROJECT NUMBER AND NAME W0431 Tactical Aircrew Combat Training System (TACTS)																										
<p>(U) D. ACQUISITION STRATEGY: The TACTS program is a non-ACAT program. The integrated program teams that develop new TACTS capabilities include contractors whose products and services are obtained by means of competitive award, indefinite deliveries/indefinite quantity, and cost-type contracts. Individual delivery orders are awarded for specific development efforts.</p> <p>(U) E. SCHEDULE PROFILE:</p> <table style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 15%; text-align: center;"><u>FY 2000</u></th> <th style="width: 15%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> <th style="width: 10%; text-align: center;"><u>TO COMPLETE</u></th> </tr> </thead> <tbody> <tr> <td>(U) Program Milestones</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Engineering Milestones</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) T&E Milestones</td> <td style="text-align: center;">2Q-00 A05/K05 DT-II</td> <td style="text-align: center;">2Q01/4Q01 A10 DT II 1Q01/4Q01 Blk 5.2 DTII</td> <td></td> <td></td> </tr> <tr> <td>(U) Contract Milestones</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>TO COMPLETE</u>	(U) Program Milestones					(U) Engineering Milestones					(U) T&E Milestones	2Q-00 A05/K05 DT-II	2Q01/4Q01 A10 DT II 1Q01/4Q01 Blk 5.2 DTII			(U) Contract Milestones				
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>TO COMPLETE</u>																								
(U) Program Milestones																												
(U) Engineering Milestones																												
(U) T&E Milestones	2Q-00 A05/K05 DT-II	2Q01/4Q01 A10 DT II 1Q01/4Q01 Blk 5.2 DTII																										
(U) Contract Milestones																												

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RDT&E, N / BA-7			0204571N Consolidated Training Systems Development			W0431 Tactical Aircrew Combat Training System (TACTS)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Systems/Software Development	Various	Various	34.982	1.188	1Q/01						36.170	
Systems Engineering (Misc. < \$1M)												
Subtotal Product Development			34.982	1.188		0.000				0.000	36.170	
Remarks:												
Software Development (Misc. <\$1M)	Various	Various	3.695	0.104	1Q/01						3.799	
Subtotal Support			3.695	0.104		0.000				0.000	3.799	
Remarks:												

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RDT&E, N / BA-7			0204571N Consolidated Training Systems Development			W0431 Tactical Aircrew Combat Training System (TACTS)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	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 (Misc. <\$1M)	Various	Various	14.982	0.220	1Q/01					Continuing	Continuing	
Subtotal T&E			14.982	0.220		0.000				Continuing	Continuing	
Remarks:												
Travel				0.020	1Q/01					Continuing	Continuing	
SBIR				0.037								
Subtotal Management			0.000	0.057		0.000				Continuing	Continuing	
Remarks:												
Total Cost			53.659	1.569		0.000				#VALUE!	#VALUE!	
Remarks:												

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N Consolidated Training Systems Development					PROJECT NUMBER AND NAME W0604 Training Range and Instrumentation Development (TRID)					
COST (\$ in Millions)	Prior Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost		0.145	1.741	3.600	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing
RDT&E Articles Qty											
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project develops specialized instrumentation systems for fleet readiness training while minimizing life cycle costs. Tasks include development of the following: electronic warfare simulators and associated subsystems, target control systems, Large Area Tracking Range (LATR) improvements, combat training systems improvements, underwater technology, ranges interoperability and information architecture, shallow water range activity which includes establishment of capability at Pacific Missile Range Facility Shallow Water Training Range (PMRF SWTR) and assorted Advanced Weapons Training Systems (AWTS), such as Imaging Weapons Training System (IWTS), Remote Strafe Scoring System (RSSS), and weapon and countermeasure simulations for use with various range training systems.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. FY 2000 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$.145) Continued study of platform interfaces and methods for joint use of frequencies. Obtained MS III decision for RSSS Product Improvement Program (PIP). <p>2. FY 2001 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$.646) Complete integration of LATR Block 3.0 software upgrade. Commence development of Block 4.0 software upgrade. Continue aircraft integration requirements analyses, prototype development and testing, and developing LATR system hardware upgrades. - (U) (\$.113) Develop and integrate platform interface improvements for combat training systems. - (U) (\$.365) Develop and integrate display system improvements for combat training systems. - (U) (\$.396) Develop and integrate new weapons training capabilities for combat training systems. - (U) (\$.186) Study platform interfaces and methods for joint use of frequencies. - (U) (\$.035) Portion of extramural program reserved for Small Bussiness Innovation Research Assessment in accordance with 15 USC 68. 											

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N Consolidated Training Systems Development	June 2001 PROJECT NUMBER AND NAME W0604 Training Range and Instrumentation Development (TRID)
<p>3. FY 2002 PLANS:</p> <ul style="list-style-type: none">- (U) (\$.913) Continue development of Block 4.0 software upgrade, analyses of range integration requirements, and development of hardware upgrades for the LATR system. Redesign, integrate and test modules to eliminate obsolete components.- (U) (\$1.298) Develop additional training capabilities for the Control and Computational Subsystem (CCS).- (U) (\$.637) Develop additional training capabilities for the Personal Computer Advanced Display and Debriefing Subsystem (PCADDS).- (U) (\$.510) Develop an interface between the CCS and the LATR conforming to the high level architecture standard.- (U) (\$.242) Analyze existing range instrumentation to determine where technology upgrades are needed to ensure that training ranges are able to support readiness objectives.		

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Exhibit R-2a, RDTEN Project Justification
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EXHIBIT R-2a, RDT&E Project Justification		DATE:											
		June 2001											
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME											
RDT&E, N / BA-7	0204571N Consolidated Training Systems Development	W0604 Training Range and Instrumentation Development (TRID)											
(U) B. PROGRAM CHANGE SUMMARY:													
	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>										
(U) FY 2001 President's Budget:	1.626	1.759	3.552										
(U) Adjustments from the President's Budget:	-1.481	-0.018	0.048										
(U) FY 2002/2003 President's Budget Submit:	0.145	1.741	3.600										
 CHANGE SUMMARY EXPLANATION:													
<p>(U) Funding: The FY 2000 net decrease of \$1.481 million reflects a \$1.475 million decrease for reprioritization of requirements within the Navy and a \$.006 million decrease for a Congressional Recission. The FY 2001 net decrease of \$.018 million reflects a \$.002 million decrease for a reprioritization of requirements within the Navy, a \$.012 million decrease for a Congressional reduction, and a \$.004 million decrease for a Congressional recission. The FY 2002 net increase of \$.048 million reflects a \$.015 million decrease for a reprioritization of requirements within the Navy and a \$.063 million increase for economic assumptions.</p>													
<p>(U) Schedule: The following milestones have changed due to program restructure.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">From:</td> <td style="width: 50%;">To:</td> </tr> <tr> <td>Block 3.0 LATR Upgrade IOC 2Q/00</td> <td>Block 3.0 LATR Upgrade IOC 1Q/01</td> </tr> <tr> <td>Block 4.0 LATR Upgrade IOC 1Q/01</td> <td>Block 4.0 LATR Upgrade IOC 2Q/03</td> </tr> <tr> <td>Block 4.0 LATR Upgrade DT III 4Q/00</td> <td>Block 4.0 LATR Upgrade DT III 1Q/03</td> </tr> <tr> <td>RSSS PIP MS III 2Q/00</td> <td>RSSS PIP MS III 4Q/00</td> </tr> </table> <p>Deleted:</p> <ul style="list-style-type: none"> AIM-7/9 SIM Upgrade SRR 4Q/01 AIM-7/9 Upgrade PDR 2Q/02 IWTS IOC 4Q/02 				From:	To:	Block 3.0 LATR Upgrade IOC 2Q/00	Block 3.0 LATR Upgrade IOC 1Q/01	Block 4.0 LATR Upgrade IOC 1Q/01	Block 4.0 LATR Upgrade IOC 2Q/03	Block 4.0 LATR Upgrade DT III 4Q/00	Block 4.0 LATR Upgrade DT III 1Q/03	RSSS PIP MS III 2Q/00	RSSS PIP MS III 4Q/00
From:	To:												
Block 3.0 LATR Upgrade IOC 2Q/00	Block 3.0 LATR Upgrade IOC 1Q/01												
Block 4.0 LATR Upgrade IOC 1Q/01	Block 4.0 LATR Upgrade IOC 2Q/03												
Block 4.0 LATR Upgrade DT III 4Q/00	Block 4.0 LATR Upgrade DT III 1Q/03												
RSSS PIP MS III 2Q/00	RSSS PIP MS III 4Q/00												
(U) Technical: Not Applicable													
(U) C. OTHER PROGRAM FUNDING SUMMARY:													
<u>Line Item No. & Name</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>			
Related OPN:	2.758	1.040	1.650	0.000	0.000	0.000	0.000	0.000	0.000	5.448			
Related RDT&E: Not Applicable													

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EXHIBIT R-2a, RDT&E Project Justification			DATE:
			June 2001
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-7	0204571N Consolidated Training Systems Development	W0604 Training Range and Instrumentation Development (TRID)	
<p>(U) D. ACQUISITION STRATEGY: The TRID program is a non-ACAT program. The integrated program teams that develop new TRID capabilities include contractors whose products and services are obtained by means of competitive award, indefinite deliveries/indefinite quantity (IDIQ), and cost-type contracts. Individual delivery orders are awarded for specific development efforts.</p> <p>(U) E. SCHEDULE PROFILE:</p>			
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>
	<u>TO COMPLETE</u>		
(U) Program Milestones	4Q RSSS PIP MS III	1Q Block3.0 LATR Upgrade IOC	2Q/03 Block 4.0 LATR Upgrade IOC
(U) Engineering Milestones			
(U) T&E Milestones			1Q/03 Block 4.0 LATR Upgrade DT III
(U) Contract Milestones			

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Exhibit R-3 Cost Analysis (page 1)							DATE: June 2001					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0204571N Consolidated Training Systems Development			W0604 Training Range and Instrumentation Development (TRID)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Systems Engineering and Software Development (Misc. < \$1M)	Various	Various	79.890	1.372	1Q/01	2.362	1Q/02			Continuing	Continuing	
Subtotal Product Development			79.890	1.372		2.362				Continuing	Continuing	
Remarks:												
Development Support (Misc. <\$1M)	Various	Various	5.898	0.302	1Q/01	0.585	1Q/02			Continuing	Continuing	
Subtotal Support			5.898	0.302		0.585				Continuing	Continuing	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0204571N Consolidated Training Systems Development			W0604 Training Range and Instrumentation Development (TRID)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	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 (Misc. <\$1M)	Various	Various	3.638	0.000		0.606	1Q/02			Continuing	Continuing	
Subtotal T&E			3.638	0.000		0.606				Continuing	Continuing	
Remarks:												
Mangement Support	WX	NAWCAD Patuxent River	1.641	0.033	1Q/01	0.047	1Q/02			Continuing	Continuing	
SBIR				0.034								
Subtotal Management			1.641	0.067		0.047				Continuing	Continuing	
Remarks:												
Total Cost			91.067	1.741		3.600				Continuing	Continuing	
Remarks:												

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EXHIBIT R-2a, RDT&E Project Justification								DATE: June 2001			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0204571N Consolidated Training Systems Development				PROJECT NUMBER AND NAME W1998 Joint Tactical Combat Training System (JTCTS)					
COST (\$ in Millions)	Prior Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost		14.472	10.163*	0.000	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing
RDT&E Articles Qty											

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

*FY01 control includes a Congressional Add for \$4.0 million which will be executed under W2982.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS: The Joint Tactical Combat Training System (JTCTS) is planned to provide fixed, transportable, and mobile range instrumentation for the USN and USAF for both shore-based and deployable applications. The fixed application provides shore-based tactical aircrew training while the mobile application will provide deployable at-sea single platform to multi-platform (surface ship, submarine and aircraft) and Naval Expeditionary Force multi-warfare training. To accomplish this, the JTCTS instrumentation is being designed to develop and transmit exercise scenarios; simulate/stimulate all exercise participants sensors and weapons with the exercise scenario, track all exercise participants and events, e.g., weapons engagements; and provide accurate, realistic, and timely exercise feedback. JTCTS is building on technology developed for existing Tactical Training Range Systems.

The E&MD contract experienced a significant schedule slip resulting in the government's decision to re-examine the acquisition plan.

1. FY 2000 ACCOMPLISHMENTS:

- (U) (\$8.626) Completed software build 3A and 3B testing. Conducted a portion of DT-II C, Captive Carry testing.
- (U) (\$3.542) Monitored contractor hardware/software development .
- (U) (\$.904) Conducted government testing.
- (U) (\$1.400) Conducted government engineering support .

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N Consolidated Training Systems Development	June 2001
PROJECT NUMBER AND NAME W1998 Joint Tactical Combat Training System (JTCTS)		
<p>2. FY 2001 PLANS:</p> <ul style="list-style-type: none">- (U) (\$4.245) Monitor contractor hardware/software development.- (U) (\$.500) Close-out Raytheon contract.- (U) (\$1.224) Develop acquisition strategy and identify risk mitigation efforts.- (U) (\$4.000) As per Navy direction, to be used in FY02 for program planning and technical evaluation in preparation for an acquisition.- (U) (\$.194) Portion of extramural program reserved for Small Business Innovation Research Assessment in accordance with 15 USC 68. <p>3. FY 2002 PLANS:</p> <ul style="list-style-type: none">- (U) Non-add FY-01 \$4.000 for program planning and technical evaluation in preparation for an acquisition.		

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EXHIBIT R-2a, RDT&E Project Justification						DATE: June 2001			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7			PROGRAM ELEMENT NUMBER AND NAME 0204571N Consolidated Training Systems Development			PROJECT NUMBER AND NAME W1998 Joint Tactical Combat Training System (JTCTS)			
(U) B. PROGRAM CHANGE SUMMARY:									
	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>						
(U) FY 2001 President's Budget:	7.828	7.783	5.909						
(U) Adjustments from the President's Budget:	6.644	3.880	-5.909						
(U) FY 2002/2003 President's Budget Submit:	14.472	11.663	0.000						
CHANGE SUMMARY EXPLANATION:									
<p>(U) Funding: The FY 2000 net increase of \$6.644 million reflects a \$6.675 million increase for reprioritization of requirements with the Navy offset by a \$.031 decrease for a Congressional Recission. The FY 2001 net increase of \$3.880 million reflects a \$4.0 million Congressional add offset by a \$.012 million decrease for a reprioritization of requirements within the Navy, a \$.082 million decrease for a Congressional Reduction and a \$.026 million decrease for a Congressional Recission. The FY 2002 decrease of \$5.909 million reflects a reprioritization of requirements within the Navy.</p> <p>(U) Schedule: The following milestones have changed. The JTCTS program is in the process of realigning the acquisition strategy. This action is focused toward the Navy, as the lead activity, awarding a contract in FY02 which will satisfy an Air Force requirement.</p> <p>(U) Technical: Not Applicable</p>									
(U) C. OTHER PROGRAM FUNDING SUMMARY:									
<u>Line Item No. & Name</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 To Complete</u>	<u>Total Cost</u>
(U) OPN BLI 420400 Weapons Range Support Equipment	0.000	5.426	0.000	2.810	2.852	2.850	2.936	2.998	Continuing
(U) APN BLI 072500 Other Production Charges	9.619	13.289	0.153	13.421	11.263	11.793	12.301	13.086	Continuing
Related RDT&E: Joint program with USAF Program Element 0604735F									

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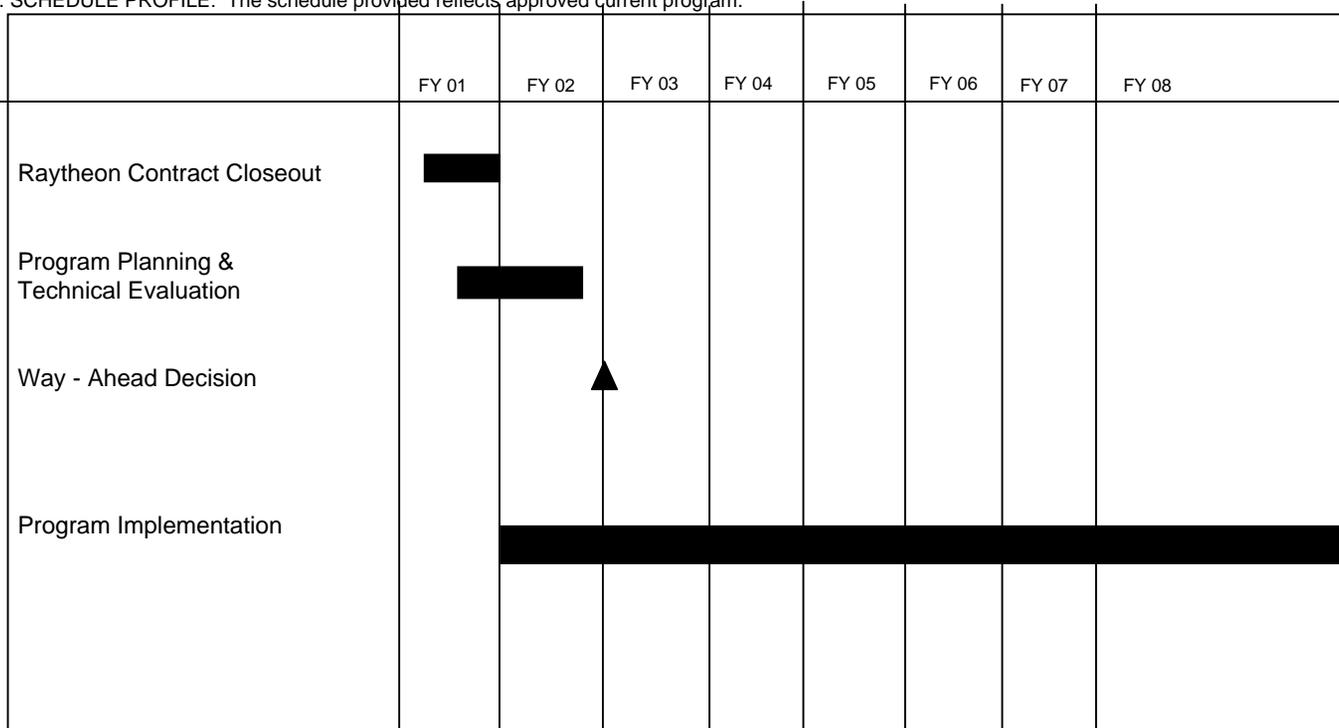
CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE: June 2001
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N Consolidated Training Systems Development	PROJECT NUMBER AND NAME W1998 Joint Tactical Combat Training System (JTCTS)
-------------------------------------------------------------	---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------

(U) D. ACQUISITION STRATEGY: The JTCTS program is in the process of realigning the acquisition strategy. This action is focused toward the Navy, as the lead activity, awarding a contract in FY02 which will satisfy an Air Force requirement.

(U) E. SCHEDULE PROFILE: The schedule provided reflects approved current program.



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Exhibit R-3 Cost Analysis (page 1)							DATE: June 2001					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0204571N Consolidated Training Systems Development			W1998 Joint Tactical Combat Training System (JTCTS)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Mobile Rangeless EMD Development	C/CPAF	Raytheon	90.539							Continuing	Continuing	Continuing
Award Fee	C/CPAF	Raytheon	5.714							Continuing	Continuing	Continuing
Mobile Rangeless EMD	C/FFP	Raytheon	4.701							Continuing	Continuing	Continuing
										Continuing	Continuing	Continuing
System Engineering (Mis. <\$1M)	Various	Various	25.961	6.919	1Q/01					Continuing	Continuing	Continuing
												Continuing
Rangeless Training System	C/CPFF	Raytheon	1.873							Continuing	Continuing	Continuing
	C/CPFF	SAIC	2.392							Continuing	Continuing	Continuing
	C/CPFF	Metric Sys Corp	0.588							Continuing	Continuing	Continuing
	Various	Various	3.201							Continuing	Continuing	Continuing
Contract Close-out	C/CPFF	Raytheon		0.500	1Q/01					Continuing		
Program Planning and Technical Evaluations	Various	Various/TBD		4.000	1Q/02					Continuing		
Subtotal Product Development			134.969	11.419		0.000				Continuing	Continuing	

Remarks: Percent of award fee that was actually awarded in prior years is 54% (3.1M).

* \$4.0M in FY01 will be used in FY02 for program planning and technical evaluations.

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Exhibit R-3 Cost Analysis (page 2)										DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0204571N Consolidated Training Systems Development			W1998 Joint Tactical Combat Training System (JTCTS)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	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	Various	Various	2.927	0.000						Continuing	Continuing	
Subtotal T&E			2.927	0.000		0.000				Continuing	Continuing	
Remarks:												
Program Management Support	Various	Various								Continuing	Continuing	
Travel	WR	Various		0.050						Continuing	Continuing	
SBIR				0.194								
Subtotal Management			0.000	0.244		0.000				Continuing	Continuing	
Remarks:												
Total Cost			148.833	11.663		0.000				Continuing	Continuing	
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-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N/Consolidated Training Systems Development					PROJECT NUMBER AND NAME W2124/Air Warfare Training Development					
COST (\$ in Millions)	Prior Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	0.000	2.061	2.134	1.904	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing
RDT&E Articles Qty	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project develops new training system technologies for use in naval aviation training. Products from this effort directly support the Marine Corps Aviation Simulation Master Plan, and will support the development and design of future naval aviation training/Mission rehearsal systems. Tasks include: 1) Advanced training systems development to provide for transportable, modular, High Level Architecture (HLA) compliant, high fidelity Mission rehearsal capabilities. Mission rehearsal is defined as the practice of planned tasks and functions critical to mission success using a true-to-life, interactive representation of the expected operating environment. Technologies to be developed and integrated include, helmet mounted and/or flat panel displays, photographic quality image generation, advanced environmental effects models, radar/infra-red/electro-optic and acoustic sensor simulations; and 2) the Aviation Training Technology Integration Facility (ATTIF), which is a man-in-the-loop testbed for the integration of software, hardware, and networked systems. ATTIF will include a HLA node for participation in fleet exercise synthetic battlespace. This ATTIF capability provides a window to fleet aviators for critical comment, evaluation, and fine tuning of new and innovative technology before it is fielded.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 2000 ACCOMPLISHMENTS:

- (U) (\$.447) Developed initial night vision device (NVD) simulation performance specifications for legacy systems integration.
- (U) (\$.282) Demonstrated combat special effects modeling (ATTIF).
- (U) (\$.120) Developed draft performance specifications for combat special effects modeling.
- (U) (\$.624) Demonstrated low-cost, networkable, PC-based image generators (IG's) with photo-realistic databases (ATTIF).
- (U) (\$.588) Developed initial performance specifications for modular weapons systems simulation.

2. FY 2001 PLANS:

- (U) (\$.480) Demonstrate forward looking infrared (FLIR) sensor, water NVD effects, and integration of night vision training system (NVTS) with a PC IG.
- (U) (\$.180) Continue to analyze and integrate performance specifications for modular weapons systems/deployable simulator systems.
- (U) (\$.906) Analyze, develop, integrate (ATTIF) modular architecture components for threat generation, instructor operating station (IOS), visuals, E-2C station, and intelligent synthetic forces.
- (U) (\$.534) Integrate (ATTIF) and demonstrate low-cost/PC-based technologies.
- (U) (\$.034) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 68.

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Exhibit R-2a, RDTEN Project Justification
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EXHIBIT R-2a, RDT&E Project Justification									DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N/Consolidated Training Systems Development					PROJECT NUMBER AND NAME W2124/Air Warfare Training Development					
COST (\$ in Millions)	Prior Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	0.000	2.061	2.134	1.904						Continuing	Continuing
RDT&E Articles Qty	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
<p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>3. FY 2002 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$.857) Analyze, develop, and integrate (ATTIF) modular architecture components for weather, intelligent wingman, E-2C platform, intelligent synthetic forces, and digital communications. - (U) (\$.400) Integrate FLIR sensor simulation with sensor host. - (U) (\$.170) Demonstrate (ATTIF) low-cost training and Mission rehearsal configurations, while maintaining or increasing fidelity. - (U) (\$.307) Develop applications for texture storage, and volumetric weather on PC video cards. - (U) (\$.170) Upgrade common IOS to the Joint Mission Planning System (JMPS) version. 											

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EXHIBIT R-2a, RDT&E Project Justification							DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME					
RDT&E, N / BA-7		0204571N/Consolidated Training Systems Development				W2124/Air Warfare Training Development					
(U) B. PROGRAM CHANGE SUMMARY:											
		FY2000	FY2001	FY2002							
(U) FY 2001 President's Budget:		2.119	2.157	1.918							
(U) Adjustments from the President's Budget:		-0.058	-0.023	-0.014							
(U) FY 2002 President's Budget Submit:		2.061	2.134	1.904							
 CHANGE SUMMARY EXPLANATION:											
(U) Funding:											
FY 2000 adjustment of $-\$0.058$ million reflects a decrease of $\$0.050$ million for reprioritization of requirements within the Navy and a decrease of $\$0.008$ million for a Congressional Recission.											
FY 2001 adjustment of $-\$0.023$ million reflects a decrease of $\$0.003$ million for a reprioritization of requirements within the Navy and a decrease of $\$0.015$ million for a Congressional Reduction, and a decrease of $\$0.005$ million for Congressional Recission.											
FY 2002 adjustment of $-\$0.014$ million reflects a decrease of $\$0.007$ million for a reprioritization of requirements within the Navy and a decrease of $\$0.007$ million for economic assumptions.											
(U) Schedule: Not Applicable											
(U) Technical: Not Applicable											
 (U) C. OTHER PROGRAM FUNDING SUMMARY:											
	<u>Line Item No. & Name</u>	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Complete	Total Cost	
APN Line 51 BA-7 (47C2) Common Ground Equipment (USMC Aviation Simulation Master Plan)		7.929	29.214	0	22.397	0	0	0	0	59.540	59.600
 <u>Related RDT&E</u>											
(U) P.E. 0603707N, Project #R1773, Sub-Project Title: Transportable Strike Assault Rehearsal System (T-STARS)											
(U) P.E. 0604245N, Project #H2279, Sub-Project Title: USMC H-1 Upgrades											

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EXHIBIT R-2a, RDT&E Project Justification			DATE: June 2001																										
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N/Consolidated Training Systems Development	PROJECT NUMBER AND NAME W2124/Air Warfare Training Development																											
<p>(U) D. ACQUISITION STRATEGY:</p> <p>(U) E. SCHEDULE PROFILE:</p> <table style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 15%; text-align: center;"><u>FY 2000</u></th> <th style="width: 15%; text-align: center;"><u>FY 2001</u></th> <th style="width: 15%; text-align: center;"><u>FY 2002</u></th> <th style="width: 15%; text-align: center;"><u>TO COMPLETE</u></th> </tr> </thead> <tbody> <tr> <td>(U) Program Milestones</td> <td>*Implement 00-02 NAPDD (1Q)</td> <td></td> <td>*Develop 03-05 NAPDD (2Q)</td> <td>*Initiate NAPDD (1Q)</td> </tr> <tr> <td>(U) Engineering Milestones</td> <td>ATTIF w/ visual system & F/A-18 cockpit delivery (4Q) PC image generator perf specifications (2Q)</td> <td>Modular architecture for common IOS, E-2C station, visuals (4Q) Modular architecture = reconfigurable</td> <td>Modular architecture for weather, intelligent forces (4Q)</td> <td>Modular architecture for cockpit avionics. (4Q)</td> </tr> <tr> <td>(U) T&E Milestones</td> <td>Initial components integration and test (4Q) PC image generator photo-realistic database (3Q)</td> <td>Modular architecture components integration and test for I/ITSEC. (1Q)</td> <td>Modular architecture components integration and test. (2Q)</td> <td>Modular architecture components integration & test (2Q)</td> </tr> <tr> <td>(U) Contract Milestones</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="margin-top: 20px;">* Non-Acquisition Program Definition Document for Air Warfare Training Development.</p>						<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>TO COMPLETE</u>	(U) Program Milestones	*Implement 00-02 NAPDD (1Q)		*Develop 03-05 NAPDD (2Q)	*Initiate NAPDD (1Q)	(U) Engineering Milestones	ATTIF w/ visual system & F/A-18 cockpit delivery (4Q) PC image generator perf specifications (2Q)	Modular architecture for common IOS, E-2C station, visuals (4Q) Modular architecture = reconfigurable	Modular architecture for weather, intelligent forces (4Q)	Modular architecture for cockpit avionics. (4Q)	(U) T&E Milestones	Initial components integration and test (4Q) PC image generator photo-realistic database (3Q)	Modular architecture components integration and test for I/ITSEC. (1Q)	Modular architecture components integration and test. (2Q)	Modular architecture components integration & test (2Q)	(U) Contract Milestones				
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>TO COMPLETE</u>																									
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Exhibit R-3 Cost Analysis (page 1)										DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N / BA-7			0204571N/Consolidated Training Systems Development				W2124/Air Warfare Training Development					
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
Systems Engineering	MIPR	Air Force Research Lab		0.415	01/01	0.405	01/02			Continuing	Continuing	
Systems Engineering	WX & WR	NAWCTSD, NAMRL		0.907	01/01	0.751	01/02			Continuing	Continuing	
												0.000
												0.000
												0.000
												0.000
Award Fees												0.000
Subtotal Product Development			0.000	1.322		1.156		0.000		0.000		2.478
Remarks:												
												0.000
												0.000
Trainer Development Support	FP/C	NAWC-AD		0.110	12/00	0.120	12/01			Continuing	Continuing	
												0.000
												0.000
												0.000
												0.000
Subtotal Support			0.000	0.110		0.120		0.000		0.000		0.230
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N / BA-7			0204571N/Consolidated Training Systems Development				W2124/Air Warfare Training Development					
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	WX	NAWC-AD		0.637	01/01	0.593	01/02			Continuing	Continuing	
											0.000	
											0.000	
											0.000	
Subtotal T&E			0.000	0.637		0.593		0.000		Continuing	Continuing	
Remarks:												
											0.000	
											0.000	
											0.000	
Travel	WX	NAWC-AD		0.031	12/00	0.035	12/01			Continuing	Continuing	
SBIR Assessment				0.034						Continuing	Continuing	
											0.000	
Subtotal Management			0.000	0.065		0.035		0.000		0.000	0.100	
Remarks:												
Total Cost			0.000	2.134		1.904		0.000		#VALUE!	#VALUE!	
Remarks:												

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 32 of 39)

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EXHIBIT R-2a, RDT&E Project Justification								DATE: June 2001			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N/Consolidated Training Systems Development					PROJECT NUMBER AND NAME X1823/Training & Modeling Systems (TMS)					
COST (\$ in Millions)	Prior Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost		8.635	9.491	11.310	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing	Continuing
RDT&E Articles Qty											
<p>(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The employment of naval forces in a multi-dimensional warfare environment is a complex operational problem. To counter the threat expected in hostile environments, naval officer training must be provided for all mission areas on a real-time basis at the Battle Force/Group level. This training must focus on tactical decision-making, tactics development/evaluation, and operational planning/execution. Shore-based classroom training and at-sea exercises have historically satisfied the Battle Group tactical training requirement. However, the effectiveness of this approach to training was reduced by the lack of a real-time decision-making environment during shore-based training and the reduction in number and scope of at-sea exercises. This requirement is fulfilled by the Joint Simulation System (JSIMS), which will replace the Enhanced Naval Warfare Gaming System (ENWGS), a legacy modeling and simulation training system.</p> <p>(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Joint Simulation System (JSIMS) will replace ENWGS and provide expanded functionality. The mission of JSIMS is to provide a readily available, operationally valid synthetic environment for the Commanders-in-Chief (CINCs), their components, other Joint organizations and the Services to: Jointly train, educate, develop doctrine and tactics, formulate and assess operational plans, assess warfighting situations, define operational requirements, and provide operational inputs to the acquisition process. In short, JSIMS will provide not only an improved certified capability for inter-Service operability but also an enhanced Joint Battle Staff training capability for the warfighting CINCs. All service Executive Agents (EAs) and Development Agents (DAs) are required to contribute to the initial population of the JSIMS architecture with facilities, services and tools, to meet an Initial Operational Capability (IOC) for Joint Task Force (JTF) training of no later than November 2002. In keeping with the premise that the Services/components are best able to define their own capabilities and functionality, the JSIMS Alliance Executive Office (AEO) is working in concert with the Services to import Service-provided functionality such as land, air, and naval and littoral warfare to JSIMS. The AEO will integrate these functionalities for use by Joint Army/Marine/Navy/Air Force exercise. JSIMS development is incremental.</p> <p>In June 1994 the Services and Director Joint Program Office signed a Memorandum of Agreement (MOA) to establish JSIMS; a critical next-generation Modeling and Simulation (M&S) system. The long-term goal of the agreement is to integrate the range of missions of the Armed Forces within a common framework. That framework provides a balanced melding of live, virtual and constructive M&S representations, with Command, Control, Communications, Computers and Intelligence (C4I) fully supported, and interfaces using real-world equipment. As the Maritime Warfare EA, OPNAV N7, on 29 August 1995, assigned NAVSEA as the JSIMS Maritime Development Agent (DA). The objective of the JSIMS Maritime portion of the JSIMS Program is to train at all levels of command, in all warfare areas, including joint and service specific training. JSIMS Maritime is developing the Maritime Mission Space Objects for the JSIMS Program, as well as selected portions of the core infrastructure and services to be determined when the Joint Object Model is partitioned. JSIMS was transferred from NAVSEA to SPAWAR PD13 at the beginning of FY 1999. On 16 December 1999, USD (AT&L) published a memorandum directing that JSIMS be reorganized per the recommendations made by the JSIMS Senior Review Board. These recommendations were detailed in a 19 November 1999 Senior Review Board memorandum. Specifically, JSIMS was directed to convert system architecture to the High-Level Architecture (HLA) standard, establish a JSIMS Alliance Executive Office, develop a new Acquisition Program Baseline (APB), and transfer Program Executive Office (PEO) responsibilities from Air Force to Army. USD (AT&L) has also designated JSIMS as an ACAT-1D program. The JSIMS Alliance was directed to develop a new JSIMS Alliance MOA by March 2000.</p>											

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N/Consolidated Training Systems Development	PROJECT NUMBER AND NAME X1823/Training & Modeling Systems (TMS)
<p>(U) B. PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2000 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (\$1.128) - Continued Build N3, which included all the models and functionality required to fully meet the JSIMS ORD for IOC and conduct demonstration of functionality. This effort was abandoned and redirected by the JSIMS Alliance. - (\$.421) - Conducted Database Development, Software Construction, and Integration and Test. Continued work on Software Version 1.1. This effort was abandoned and redirected by the JSIMS Alliance. - (\$.506) - Continued Security Engineering & Development for Build N2 Collaborative Event. Conducted Build N2 and N3 Collaborative Events until this effort was abandoned and redirected by the JSIMS Alliance. - (\$6.580) - Completed rebaselining of the Maritime portion of the JSIMS program to comply with DUSD (AT&L) direction. Completed first two increments of Maritime Models and Code, which included amphibious movement to shore, sensor detections, and naval gun engagements. Completed data element description documents for Increment 1, 2, and 3 data elements. Completed Increments 1 & 2 of the Visual Basic and Java database tools. Completed attribute database libraries for ships, boats, submarines, and amphibious craft. Wrote increment 1-7 test procedures. <p>2. (U) FY 2001 PLAN:</p> <ul style="list-style-type: none"> - (\$0) - Complete post-Collaborative Event Development, Integration, and Testing. This planned effort was abandoned for the revised program as directed by the JSIMS Alliance. - (\$0) - Complete security development for IOC exercise; Develop and Conduct IOC exercise. This planned effort was abandoned for the revised program as directed by the JSIMS Alliance. - (\$0) - Continue Engineering & Development of Version 1.1 for release to Navy training sites. Begin Engineering & Development of Software Version 1.2. This planned effort was abandoned for the revised program as directed by the JSIMS Alliance. - (\$7.990) - Complete all Object Oriented Analysis for Increments 3, 4, 5 and 6 models which include Close in Weapons System (CIWS), cruise Missiles, Fixed Wing aircraft, flight deck operations, Identify Friend or Foe (IFF), rockets, surface to air missiles, battle damage assessment, infrared sensors, radar, torpedoes, towing, ship and submarine kinematics, tactical organizations, platform track processing, dipping sonar, flight deck operations part 2, logistics, and mine-laying. - (\$.851) - Conduct testing of Increments 1-3. - (\$.096) - Conduct Federation Integration events 1-3. 		

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N/Consolidated Training Systems Development	June 2001
PROJECT NUMBER AND NAME X1823/Training & Modeling Systems (TMS)		
<p>(U) B. PROGRAM ACCOMPLISHMENTS AND PLANS (CONTINUED):</p> <ul style="list-style-type: none">- (\$.554) - Develop database attribute libraries for fixed wing aircraft, rotary wing aircraft, and naval bases. Develop databases for sensors, weapons and countermeasures. <p>3. (U) FY 2002 PLAN:</p> <ul style="list-style-type: none">- (\$9.007) - Complete Object Oriented Analysis (OOA)/Object Oriented Design (OOD) of all Increment 7 models including C4I formatted report, chemical warfare, IFF part 2, radar jamming, mine detection, small arms, magazine reload, and naval bases/ports/harbors. In conjunction with other JSIMS Alliance partners, attain Version Release Milestone (VRM) 1.0- (\$1.258) - Conduct Increment 7 testing.- (\$.689) - Conduct attribute databases for Increment 7 models.- (\$.354) - Conduct Federation Integration events 4 and 5.		

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EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2001							
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204571N/Consolidated Training Systems Development	PROJECT NUMBER AND NAME X1823/Training & Modeling Systems (TMS)								
(U) B. PROGRAM CHANGE SUMMARY:										
	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>						
(U) FY 2001 President's Budget:	8.223	9.579	9.077							
(U) Adjustments from the President's Budget:	0.412	-0.088	2.233							
(U) FY 2002/2003 OSD/OMB Budget Submit:	8.635	9.491	11.310							
 CHANGE SUMMARY EXPLANATION:										
(U) Funding:	<p>The FY 2000 net increase of \$.412 million is for Across -the-Board Reduction (-.046M); FY2000 Midyear Review Adjustments (+.572M); Section 8055: Proportionate Recissions (-.032M); Miscellaneous Navy Adjustments (-.082M). The FY 2001 decrease of \$.088 million is for a Section 8086: .7% Pro-Rata Reduction (-.067M); Government-Wide Rescission: PL 106-554, Sec. 14 (-.021M). The FY 2002 increase of \$2.231 million is for FINAL POM02 BALANCE (-.011M); NWCF RATES - NCCOSC (+.009M); NWCF RATES - Naval Surface Warfare Centers (-.002M); PDM-Joint Simulation Systems (JSIMS) (+2.100M); PBD 604: Non-Pay Inflation Base (+.014M); Program Support (+.179M); PBD 604: Non-Pay Residual (+.001M); NWCF Rates-NCCOarch Laboratory (-0.58M); NWCF Rates-Naval Surface Warfare Centers (-.001M).</p>									
(U) Schedule:	Previous schedule and program structure abandoned. Complete revised schedule displayed in D., below.									
 (U) C. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</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>
BLI: 2760 / Other SPAWAR Training	0.979	1.329	1.793						Continuing	Continuing
BA: 1 AGSAG: 1C4C JSIMS-M	0.195	2.155	4.808						Continuing	Continuing

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME			
RDT&E, N / BA-7	0204571N/Consolidated Training Systems Development	X1823/Training & Modeling Systems (TMS)			
(U) D. ACQUISITION STRATEGY: N/A					
(U) E. SCHEDULE PROFILE:					
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>TO COMPLETE</u>
(U) Program Milestones					
(U) Engineering Milestones	Federate Integration Events 1-3	Federation Integration Events 1-3	Federation Int Events 4 and 5 VRM 1.0		
(U) T&E Milestones		Functional Assessment 1	Functional Assessment 2		
		Systems Functional Assessment	Early Operational Assessment	Operational Test and Eval	
			Domain Validation		
			Security Test & Evaluation		
			Functional Testing		
			Operational Assessment		
			Operational Test and Eval		
(U) Contract Milestones	N/A				

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RDT&E, N / BA-7			0204571N/Consolidated Training Systems Development				X1823/Training & Modeling Systems (TMS)					
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
Systems Engineering	WR/RCP	Various	5.615	2.112	11/00	2.954	11/01			Continuing	Continuing	
Licenses	WR/RCP	SSCSD, CA	0.408	0.000	11/00					Continuing	Continuing	
Subtotal Product Development			6.023	2.112		2.954		0.000		Continuing	Continuing	
Remarks:												
Software Development	WR/RCP	SSCSD, CA	17.956	3.040	11/00	3.613	11/01			Continuing	Continuing	
Technical Data	WR/RCP	SSCSD, CA	2.318	0.554		0.689				Continuing	Continuing	
Subtotal Support			20.274	3.594		4.302				Continuing	Continuing	
Remarks:												

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APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N / BA-7			0204571N/Consolidated Training Systems Development				X1823/Training & Modeling Systems (TMS)					
Cost Categories	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/RCP	Various	2.419	0.846	11/00	1.468	11/01			Continuing	Continuing	
Operational Test & Evaluation	WR/RCP	Various	0.134	0.101	11/00	0.144	11/01			Continuing	Continuing	
Subtotal T&E			2.553	0.947		1.612				Continuing	Continuing	
Remarks:												
Contractor Engineering Support	WR/RCP	SSCSD, CA	2.193	1.234	11/00	1.056	11/01			Continuing	Continuing	
Government Engineering Support	WR/RCP	SSCSD, CA	2.029	1.539	11/00	1.333	11/01			Continuing	Continuing	
Travel	WR/RCP	SSCSD, CA	0.093	0.065	11/00	0.051	11/01			Continuing	Continuing	
Subtotal Management			4.315	2.838		2.440				Continuing	Continuing	
Remarks:												
Total Cost			33.165	9.491		11.308		0.000		Continuing	Continuing	
Remarks:												

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