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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	24.646	41.511	50.750	0.000	50.750	46.510	34.671	24.609	25.128	Continuing	Continuing
0604: Training Range & Instr Dev	3.804	3.817	3.335	0.000	3.335	3.507	3.546	3.589	3.660	Continuing	Continuing
1427: Surface Tactical Team Trainer (STTT)	9.114	8.269	5.485	0.000	5.485	5.802	5.853	5.939	6.061	Continuing	Continuing
2124: Air Warfare Training	1.706	1.766	1.665	0.000	1.665	1.761	1.789	1.814	1.850	Continuing	Continuing
3087: Curriculum & Trainer Development	4.467	18.963	24.146	0.000	24.146	22.090	14.492	4.237	4.340	Continuing	Continuing
3093: TACTS/LATR Replacement	2.923	6.306	16.119	0.000	16.119	13.350	8.991	9.030	9.217	Continuing	Continuing
9999: Congressional Adds	2.632	2.390	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	11.550
A. Mission Description and Budget Item Justification											
A. MISSION DESCRIPTION: 0604 - The Training Range and Instrumentation Development Systems (TRIDS) program provides development of range systems including a range electronic warfare simulator, advanced weapons training systems, laser training systems, Tactical Aircrew Combat Training System (TACTS), Large Area Tracking Range (LATR), and Training Enabling Architecture interoperability, combat training system improvements, and undersea warfare range technology (previously called shallow water range technology). 1427/3087/3087A - The Surface Tactical Team Trainer (STTT) develops Battle Force Tactical Training (BFTT) system capabilities and interfaces to provide realistic combat system coordinated team, unit, and collective Strike Group/Force level training events using Distributed Interactive Simulation (DIS) protocols. Curriculum and Trainer Development develops the Total Ship Training Capability (TSTC) as a Pre-Planned Product Improvement to the BFTT system that facilitates evolving combat system interfaces, implements High Level Architecture (HLA) and common modeling for future interoperability and integrates advanced technology and open design required for future combat systems. The need for transforming training is documented within the Office of Force Transformation Military Transformation Initiative, DoD Training Transformation Plan, the Chief of Naval Operations Fleet Response Plan, and Commander United States Fleet Forces Command Fleet Readiness Training Plan. The FY 09 Congressional Add provides funding for the demonstration of the voice command recognition and assessment capability to the TSTC Support System.											

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0204571N: Consolidated Trng Sys Dev			
BA 7: Operational Systems Development					
2124 - The Air Warfare Training Development (AWTD) program provides technology development and risk mitigation for aviation training systems, including mission rehearsal simulation technologies and the Aviation Training Technology Integration Facility (ATTIF). The ATTIF provides for incremental development, prototype evaluation, and final fleet T&D prior to technology transition.					
3093 - The Tactical Combat Training System (TCTS) will provide the Navy a replacement for the TACTS and LATR systems. TCTS will also provide fleet deployable instrumentation for at sea training and tactics development. By providing a rangeless capability, the system will greatly increase the area where live instrumented training can be conducted. Initial fielding of a Non Developmental Item (NDI) Pod system as NAS Key West is complete. The Program incorporates evolutionary development (incremental) towards a system capable of supporting a broad spectrum of naval platforms through weapons simulations, participant weapons system stimulation, open architecture, and a high capacity/long range.					
9C57A - Undersea Warfare (USW) Training is essential to effective USW warfighting operations, i.e. the "Fight as you Train" principle. The Navy's Supportability Peer Review Process Work Group - SupWG, whose membership spans across the US Navy, National laboratories, and private industry representatives, develops common core Training elements in support of the US Navy's warfighting missions. The ultimate goal of the working group is to achieve theater-wide common, interoperable, and high fidelity USW training baselines for the shipboards, undersea, airborne, and shore-based USW communities.					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	27.505	49.293	0.000	0.000	0.000
Current President's Budget	24.646	41.511	50.750	0.000	50.750
Total Adjustments	-2.859	-7.782	50.750	0.000	50.750
• Congressional General Reductions		-0.182			
• Congressional Directed Reductions		-10.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		2.400			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-2.494	0.000			
• SBIR/STTR Transfer	-0.365	0.000			
• Program Adjustments	0.000	0.000	50.750	0.000	50.750
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 9999: Congressional Adds					
Congressional Add: NAVAIR High Fidelity Oceanographic Library					
	FY 2009	FY 2010			
	0.000	2.390			

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<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2009	FY 2010
Congressional Add: <i>TOTAL SHIP TRAINING SYSTEM (TSTS)</i>		1.037	0.000
Congressional Add: <i>ASW TRAINING INTEROPERABILITY ENTERPRISE DEMO TEST</i>		1.595	0.000
Congressional Add Subtotals for Project: 9999		2.632	2.390
Congressional Add Totals for all Projects		2.632	2.390
<u>Change Summary Explanation</u>			
Schedule:			
AWTD Changes:			
FM: TO:			
SOFTWARE & GOS FY09 2Q FY09 3Q. E2-D moved to 3Q.			
Weapons Server and Network Technologies			
TEST AND EVALUATION MILESTONES			
CDMS & AARS Spec/Demos: FY09 4Q. MH-60R/S CDMTS design improvement.			
Sensor Stimulation (3)/Sensor Fusion: FY09 4Q, FY11 4Q. JHMCS w/NVD effort rescheduled.			
Technical:			
Increased funding for JTRS integration with TCTS			
FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.			

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 0604: <i>Training Range & Instr Dev</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
0604: <i>Training Range & Instr Dev</i>	3.804	3.817	3.335	0.000	3.335	3.507	3.546	3.589	3.660	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification This project develops specialized instrumentations 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, TACTS, LATR improvements, Test and Training Enabling Architecture (TENA) interoperability, combat training systems improvements, underwater technology, ranges interoperability and information architecture, and assorted Advanced Weapons Training Systems (AWTS), such as Imaging Weapons Training Systems (IWTS), Remote Strafe Scoring System (RSSS), and weapon and countermeasure simulations for use with various range training systems.											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
LATR						3.311	3.817	3.335	0.000	3.335	
LATR: Designed, integrated and tested modules to eliminate obsolete components in the LATR Pod. Completed design, integration and test of LATR software 5.0 baseline upgrade. Completed design, integration, and test of Participant Instrumentation Packages (PIP) modules to address obsolescence, high failure components and to improve operability and performance. Conducted and completed installation of the Ground System Rehost. Conducted and completed security testing and assessment for LATR system certification and accreditation for Ground System Rehost. Complete development, test and integration of software and hardware modifications to system test sets. Developed interface software using TENA increase Tactical Training Ranges (TTR) systems interoperability with other services training instrumentation. Completed development of LATR rotary wing re-size and LATR Datalink emulator. Complete development, test and integration of LATR data translator. Complete follow-on obsolescence study to identify sub-projects required through FY17. Complete ground system and PIP refresh sub-project. Complete semi-annual system block upgrades.											

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev		PROJECT 0604: Training Range & Instr Dev		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: Developed and updated LATR range software to 5.3.0. New capabilities included: Ability for LATR to output its tracks for a configurable amount of time to smooth any loss in RF, enable LATR ACM to change IDs during real-time operation, enable LATR operators to manually correlate LATR and Identification Friend or Foe (IFF) tracks so a IFF track could be substituted for a LATR track automatically after a given amount of time and to enable a configurable ability to automatically decay tracks off LATR displays and to filter IFF tracks by Mode. 2. Updated Electronic Warfare (EW) Server threats.						
FY 2010 Plans: Initiate LATR enhancement planning in the areas of EW integration, Common Alternative Track Source inclusion, LINK 16 integration, and Time, Space and Position Information (TSPI) improvements.						
FY 2011 Base Plans: Develop the site acceptance for EW integration, Common Alternative Track Source inclusion, LINK 16 integration, and TSPI improvements.						
TACTS TACTS: Developed additional training capabilities for the personal computer based Joint Display Subsystem (JDS) and the Electronic Warfare Processor (EW PROC). Enhanced capability for Advanced Systems Operator Console (ASOC), enhanced Radar Display Subsystem (RADS), and ancillary systems interfaces. Continued development and deployment of LINK 16 interface for TTR applications. Complete Semi-annual CCS Block upgrades.		0.493	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: Updated JDS and RAD in support of current TCTS ops and future TCTS deployment.						

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B. Accomplishments/Planned Program (\$ in Millions)					
				FY 2009	FY 2010
				FY 2011 Base	FY 2011 OCO
				FY 2011 Total	
Accomplishments/Planned Programs Subtotals				3.804	3.817
				3.335	0.000
				3.335	
C. Other Program Funding Summary (\$ in Millions)					
N/A					
D. Acquisition Strategy					
The TRID program is a non-ACAT program. The integrated program teams that develop new TRID capabilities include government and contractor engineering personnel.					
E. Performance Metrics					
Metric/Description:					
Tybrin Corp: # of TTR software product improvements and new capabilities. Successful design, development, and testing of product improvements and new capabilities. Site acceptance of product improvements with no Priority 1 or 2 problem reports.					
NAWC-AD: # of LATR software product improvements and new capabilities. Successful application of system engineering processes. Design and development of improvements. Site acceptance of product improvements with no Priority 1 or 2 problem reports. Completion of 1 upgrade per year.					
NAWC-WD: # of TTR upgrades per year. Successful application of system engineering processes. Design and development of improvements. Site acceptance of product improvements with no Priority 1 or 2 problem reports. Completion of 2 upgrade per year.					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev				PROJECT 0604: Training Range & Instr Dev			

Product Development (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	Various/ Various	Various Various	89.351	0.000		0.000		0.000		0.000	0.000	89.351	Continuing
Systems Engineering	Various/ Various	NAWC-AD PAX RIVER, MD	3.298	1.104	Nov 2009	0.828	Nov 2010	0.000		0.828	0.000	5.230	Continuing
Systems Engineering	Various/ Various	NAWC-WD CHINA LAKE, CA	2.538	0.950	Nov 2009	0.907	Nov 2010	0.000		0.907	0.000	4.395	Continuing
Systems Engineering	SS/FFP	TYBRIN CORP FORT WALTON BEACH, FL	1.425	1.370	Nov 2009	1.270	Nov 2010	0.000		1.270	0.000	4.065	Continuing
Systems Engineering	Various/ Various	NSWC CORONA, CA	0.081	0.120	Nov 2009	0.110	Nov 2010	0.000		0.110	0.000	0.311	Continuing
Systems Engineering	Various/ Various	NAWC-TSD ORLANDO, FL	0.220	0.273	Nov 2009	0.220	Nov 2010	0.000		0.220	0.000	0.713	Continuing
Subtotal			96.913	3.817		3.335		0.000		3.335	0.000	104.065	

Remarks

Support (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	Various/ Various	Various Various	10.576	0.000		0.000		0.000		0.000	0.000	10.576	Continuing

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Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			10.576	0.000		0.000		0.000		0.000	0.000	10.576	
Remarks													
Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	Various/ Various	Various Various	5.299	0.000		0.000		0.000		0.000	0.000	5.299	Continuing
Subtotal			5.299	0.000		0.000		0.000		0.000	0.000	5.299	
Remarks													
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various/ Various	Various Various	2.513	0.000		0.000		0.000		0.000	0.000	2.513	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010																																												
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<p>Management Services (\$ in Millions)</p> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th colspan="2">FY 2011 Total</th> <th colspan="2"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method & Type</th> <th>Performing Activity & Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">2.513</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">2.513</td> <td></td> </tr> </table> <p>Remarks</p>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	Subtotal			2.513	0.000		0.000		0.000		0.000	0.000	2.513	
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																													
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract																																										
Subtotal			2.513	0.000		0.000		0.000		0.000	0.000	2.513																																											
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			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract																																										
Project Cost Totals			115.301	3.817		3.335		0.000		3.335	0.000	122.453																																											

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy																								DATE: February 2010								
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Fiscal Year					2009				2010				2011				2012				2013				2014				2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
TACTS Acquisition Milestones EW Processor PDR CDR DEV T&E IOC FOC																																
RADS Upgrades PDR CDR DEV T&E Semi-Annual Blk Upgrades																																
Link 16 TACTS Dev PDR CDR DEV T&E IOC																																
ASOC Upgrades PDR CDR DEV T&E Semi-Annual Blk Upgrades																																
JDS Upgrades PDR CDR DEV T&E Semi-Annual Blk Upgrades																																

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy																							DATE: February 2010									
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Fiscal Year					2009				2010				2011				2012				2013				2014				2015			
					1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
LATR GPS UPGRADE LATR ADIU UPGRADE LATR LRWS REHOST																																
LATR RECERTIFICATION LATR RW RESIZE LATR R-3 EMULATOR																																
BLOCK 5.1 UPGRADE BLOCK 6.0 BLOCK 6.3																																
BLOCK 6.4 BLOCK 6.5 BLOCK 6.6 BLOCK 6.7 BLOCK 6.8 BLOCK 6.9																																

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
TACTS - RADS UPGRADES - PDR	1	2009	4	2009
TACTS - RADS UPGRADES - CDR	2	2009	4	2009
TACTS - RADS UPGRADES - DEV	1	2009	1	2010
TACTS - RADS UPGRADES - T & E	1	2009	1	2010
TACTS - RADS UPGRADES - SEMI ANNUAL BLK UPGRADES	1	2009	1	2010
TACTS - LINK 16 TACTS DEV - T & E	1	2009	1	2009
TACTS - LINK 16 TACTS DEV - IOC	1	2009	1	2009
TACTS - ASOC UPGRADES - PDR	1	2009	4	2009
TACTS - ASOC UPGRADES - CDR	2	2009	4	2009
TACTS - ASOC UPGRADES - DEV	1	2009	1	2010
TACTS - ASOC UPGRADES - T & E	1	2009	1	2010
TACTS - ASOC UPGRADES - SEMI ANNUAL BLK UPGRADES	1	2009	1	2010
TACTS - JDS UPGRADES - DEV	1	2009	1	2009
TACTS - JDS UPGRADES - T & E	1	2009	1	2009
TACTS - JDS UPGRADES - SEMI ANNUAL BLK UPGRADES	1	2009	1	2009
LATR - 6.3 UPGRADE	1	2009	4	2009
LATR - 6.4 UPGRADE	1	2010	4	2010
LATR - 6.5 UPGRADE	1	2011	4	2011

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010	
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		Start		End
Event	Quarter	Year	Quarter	Year
LATR - 6.6 UPGRADE	1	2012	4	2012
LATR - 6.7 UPGRADE	1	2013	4	2013
LATR - 6.8 UPGRADE	1	2014	4	2014
LATR - 6.9 UPGRADE	1	2015	4	2015

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1427: Surface Tactical Team Trainer (STTT)	9.114	8.269	5.485	0.000	5.485	5.802	5.853	5.939	6.061	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
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 DIS/HLA protocols. BFTT provides ships' Commanding Officers and Battle Group/ Battle Force Commanders with the ability to conduct coordinated realistic, high stress, combat system level team training as an integral part of the Afloat Training Organizations, the Tactical Training Groups and C2F/C3F Fleet Synthetic Training Exercises (FSTs). BFTT provides a baseline capability/system that meets the Operational Requirements Document (ORD). Without an operating BFTT system, the ship will be unable to complete system level testing impacting overall combat system operability testing.											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Surface Tactical Team Trainer (STTT) FY 2009 Accomplishments: Complete Build 3.3.2 certification to support the Cruiser Guided Modernization Combat System improvements; development of the BFTT Security Classification Guide (SCG) in accordance with SCG OPNAVINST S5513.1F and program protection plan; scope and define BFTT Build 3.5 development addressing Obsolescence issues, security network redesign, and incorporation of Ballistic Missile Defense (BMD) and ASW interface upgrades (conjunctive BFTT system improvements with BMD and ASW programs); and continue development and integration of new software capabilities and system interfaces to address emergent requirements.						9.114	8.269	5.485	0.000	5.485	

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010							
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>		PROJECT 1427: <i>Surface Tactical Team Trainer (STTT)</i>							
B. Accomplishments/Planned Program (\$ in Millions)											
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total					
<i>FY 2010 Plans:</i> Government Acceptance Testing (GAT), testing, certification, and safety assessment of BFTT Build 3.5; scope, design and begin development of build 3.5.1 to address database improvements, architecture and content improvements to support LSD 41/49 Class mid-life combat system upgrade; AEGIS ACB12, T46D installation on SSDS ships and continue development and integration of new software capabilities and system interfaces to address emergent requirements. Funding was also provided for a Joint Threat Emitter (JTE) Shipboard Compatibility effort.											
<i>FY 2011 Base Plans:</i> Complete development and begin Final testing and certification of BFTT Software load 3.5.1 for AEGIS ACB12, LSD 41/49 Class and SSDS ships. Finalize requirements and begin design of BFTT Software 3.5.2 for CVN 78.											
Accomplishments/Planned Programs Subtotals		9.114	8.269	5.485	0.000	5.485					
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• OPN 276200: <i>(Surface BFTT/TSTC portion only)</i>	20.950	24.095	21.642	0.000	21.642	22.576	23.684	28.561	32.007	0.000	173.515
D. Acquisition Strategy											
The BFTT acquisition strategy for system development utilizes the spiral development model, as mandated by OSD. Incremental acquisition and fielding, utilizing COTS to the extent possible, is in accordance with the BFTT ACAT IVM Milestone III approved documentation.											
E. Performance Metrics											
NSWC Dam Neck: # of BFTT/TSTC software and hardware product improvements and new capabilities. Successful design, development, and testing of product improvements and new capabilities. Site acceptance of product improvements with no Priority 1 or 2 problem reports.											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>	PROJECT 1427: <i>Surface Tactical Team Trainer (STTT)</i>
NSWC Dahlgren: # of Test events and Training System interface problem resolutions documented. Successful application of system engineering processes. Safety Reviews in direct support of Element Certifications. Completion of 1 upgrade per year.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 1427: <i>Surface Tactical Team Trainer (STTT)</i>					
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Development	WR	NAVSEA 02/ CDSA Dam Neck	8.680	3.246	Feb 2010	0.000		0.000		0.000	0.000	11.926	Continuing
Systems Engineering	WR	NSWC Dam Neck/NSWC Dahlgren/ NAVSEA 02 Dam Neck/NSWC Dahlgren	4.251	1.564	Dec 2009	1.574	Dec 2010	0.000		1.574	0.000	7.389	Continuing
Subtotal			12.931	4.810		1.574		0.000		1.574	0.000	19.315	
Remarks													
Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	WR	NSWC Dam Neck/NAVSEA 02 WR/REQN	5.316	1.997	Feb 2010	2.481	Feb 2011	0.000		2.481	0.000	9.794	Continuing
Subtotal			5.316	1.997		2.481		0.000		2.481	0.000	9.794	
Remarks													

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010																																																										
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 1427: <i>Surface Tactical Team Trainer (STTT)</i>																																																													
Test and Evaluation (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method & Type</th> <th>Performing Activity & Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>Developmental Test & Evaluation</td> <td>WR</td> <td>NSWC PHD/NSWC Dam Neck/NAVSEA 02 WR/REQN</td> <td align="right">1.647</td> <td align="right">0.604</td> <td align="center">Dec 2009</td> <td align="right">0.911</td> <td align="center">Dec 2010</td> <td align="right">0.000</td> <td></td> <td align="right">0.911</td> <td align="right">0.000</td> <td align="right">3.162</td> <td align="center">Continuing</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">1.647</td> <td align="right">0.604</td> <td></td> <td align="right">0.911</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.911</td> <td align="right">0.000</td> <td align="right">3.162</td> <td></td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	Developmental Test & Evaluation	WR	NSWC PHD/NSWC Dam Neck/NAVSEA 02 WR/REQN	1.647	0.604	Dec 2009	0.911	Dec 2010	0.000		0.911	0.000	3.162	Continuing	Subtotal			1.647	0.604		0.911		0.000		0.911	0.000	3.162	
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																																											
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Subtotal			1.647	0.604		0.911		0.000		0.911	0.000	3.162																																																									
Remarks																																																																					
Management Services (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method & Type</th> <th>Performing Activity & Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>Government Engineering Support</td> <td>WR</td> <td>NSWC Dam Neck/NSWC Dahlgren WR/REQN</td> <td align="right">2.579</td> <td align="right">0.858</td> <td align="center">Jan 2010</td> <td align="right">0.519</td> <td align="center">Jan 2011</td> <td align="right">0.000</td> <td></td> <td align="right">0.519</td> <td align="right">0.000</td> <td align="right">3.956</td> <td align="center">Continuing</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">2.579</td> <td align="right">0.858</td> <td></td> <td align="right">0.519</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.519</td> <td align="right">0.000</td> <td align="right">3.956</td> <td></td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	Government Engineering Support	WR	NSWC Dam Neck/NSWC Dahlgren WR/REQN	2.579	0.858	Jan 2010	0.519	Jan 2011	0.000		0.519	0.000	3.956	Continuing	Subtotal			2.579	0.858		0.519		0.000		0.519	0.000	3.956	
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																																											
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract																																																								
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Subtotal			2.579	0.858		0.519		0.000		0.519	0.000	3.956																																																									
Remarks																																																																					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy							DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>			PROJECT 1427: <i>Surface Tactical Team Trainer (STTT)</i>				
	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	22.473	8.269		5.485		0.000		5.485	0.000	36.227	
Remarks											

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*
BA 7: *Operational Systems Development*

R-1 ITEM NOMENCLATURE

PE 0204571N: *Consolidated Trng Sys Dev*

PROJECT

1427: *Surface Tactical Team Trainer (STTT)*

Build	FY2009				FY2010				FY2011				FY2012				FY2013				FY2014				FY2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
BFTT 3.3.1C			INSTALLS																									
BFTT 3.3.2			INSTALLS																									
BFTT 3.4																												
BFTT 3.5 (ACB11&12)																												
SSDS																												
BFTT 3.5.1 (ACB12)																												
SSDS MK2, LSD41/49																												
BFTT 3.5.2 (CVN78)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>	PROJECT 1427: <i>Surface Tactical Team Trainer (STTT)</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
BFTT 3.3.1C	1	2010	4	2010
BFTT 3.3.2 CS WSERB	1	2009	1	2009
BFTT 3.3.2 DELIVERY	2	2009	2	2010
BFTT 3.4 DELIVERY	2	2010	4	2010
BFTT 3.5 DEVELOPMENT	1	2009	4	2009
BFTT 3.4 GAT	1	2010	2	2010
BFTT 3.5 ET&E	2	2010	3	2010
BFTT 3.5 DELIVERY	2	2010	3	2012
BFTT 3.5.1 DEVELOPMENT	1	2010	1	2011
BFTT 3.3.1 GAT	2	2011	4	2011
BFTT 3.5.1 ET&E	4	2011	3	2012
BFTT 3.5.1 WSERB	1	2012	1	2012
BFTT 3.5.1 DELIVERY	3	2012	1	2014
BFTT 3.5.2 DEVELOPMENT (CVN 78)	1	2011	4	2012
BFTT 3.5.2 GAT	1	2013	4	2013
BFTT 3.3.2 ET&E	1	2014	4	2014
BFTT 3.5.2 DELIVERY (CVN 78)	4	2014	1	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 2124: <i>Air Warfare Training</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2124: <i>Air Warfare Training</i>	1.706	1.766	1.665	0.000	1.665	1.761	1.789	1.814	1.850	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This project transitions new training system technologies for use in Naval Aviation training. Products from this effort are directly tied to the Navy and Marine Corps Aviation Simulation Master Plans (NASMP) and (MCASMP) (\$479M), the MH-60R/S master plan, the F/A-18C-F Requirements Procurement Plan (RPP), the Multi-Mission Maritime Aircraft (MMA/P-8) program, and will support the development and design of future naval aviation training/mission rehearsal systems, (fixed and deployed). Tasks include: 1) Advanced training systems specification development to provide for common, modular, HLA-compliant, high fidelity Distributed Mission Training (DMT) and mission rehearsal capabilities, ashore and afloat. Technologies to be developed and interaged include: intelligent semi-automated forces technology, Advanced Net-ready weapons simulation, AA/A-G, weather server, common Mission Training Station (MTS) technologies, advanced visual-sensor technology, high-resolution helmet mounted, and/or flat panel displays, 20-20 visual acuity image generation, Navy portable source initiative (NPSI) common dataset technology, common software/data/database reuse technologies, advanced environmental effects modeling, fused radar/infra-red/electro-optic and acoustic sensor simulations, physics-based Infra Red (IR) stimulations; and final T&E within the ATTIF, NAWCAD, which is a man-in-the loop test bed for the integration of software, hardware, and operational equipment. This ATTIF capability provides a window to fleet aviators for critical comment, evaluation, and fine tuning of new, interoperable, and innovative technologies before final transition to the Fleet. Master Training Station (MTS), Debrief/AAR and intelligent training support tools for the virtual environment are focused on human performance enhancements for Fleet readiness and distributed missions, training, all levels.

Metrics - These technology transitions will both lower Total Ownership Costs (TOC) of the training systems, and life-cycle costs, including: visual system database re-use, reduced instructor manning profiles, software-based fidelity enhancements, and increased fleet readiness by enhancing overall system fidelity to the projected operating environments. NASMP / MCSMP readiness improvements are conservatively forecast at 14-35% following associated technology upgrades to stand alone, or networked simulators. Individual technology transition investments have routinely exceeded 300+% financial Return on Investment (ROI). Technology readiness levels (TRLs), fleet readiness and financial metrics are used.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
HUMAN SYSTEMS INTEGRATION	0.801	0.543	0.780	0.000	0.780

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev		PROJECT 2124: Air Warfare Training		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
HUMAN SYSTEMS INTEGRATION: (Mission Training Station (MTS), Intelligent Semi-Automated-Forces (SAF) technologies). MTS designs to lower NASMP/Platform simulator life-cycle costs, integrate VOICE-Capable SAF component technologies, improve common instructor interface effectiveness and provide for multi-SAF exercise utilization. Analyze, develop, and integrate open architecture components for FA-18C-F, MH-60R/S, UAS, E-2C/D & USMC mission areas, intelligent instructor operator components, TACAIR/MMA/ROBD common GUI initiatives, common threat system formats and Next Generation Threat System connectivity, Joint SAF and MCSMP Tactical Experimental Network (TEN) compatability, performance measurement, and AAR/debrief, thereby maximizing ROI for mission training station-related technology investments.						
FY 2009 Accomplishments: Provided for modular MTS designs to lower NASMP/Platform simulator life-cycle costs, integrated VOICE-Capable (SAF) component technologies, improved common instructor interface effectiveness and provided for multi-SAF exercise utilization. Analyzed, developed, and integrated open architecture components for FA-18C-F, MH-60R/S, UAS, E-2C/D & USMC mission areas, intelligent instructor operator components, TACAIR/MMA/ROBD common GUI initiatives, common threat system formats and Next Generation Threat System connectivity, Joint SAF and MCSMP TEN compatability, performance measurement, and AAR/debrief, thereby maximizing ROI for mission training station-related technology investments.						
FY 2010 Plans: Continue to provide for modular MTS designs to lower NASMP/Platform simulator life-cycle costs, integrate VOICE-Capable (SAF) component technologies, improve common instructor interface effectiveness and provide for multi-SAF exercise utilization. Analyze, develop, and integrate open architecture components for FA-18C-F, MH-60R/S, UAS, E-2C/D & USMC mission areas, intelligent instructor operator components, TACAIR/MMA/ROBD common GUI initiatives, common threat system formats and Next Generation Threat System connectivity, Joint SAF and MCSMP TEN compatability,						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev		PROJECT 2124: Air Warfare Training	
B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
performance measurement, and AAR/debrief, thereby maximizing ROI for mission training station-related technology investments. FY 2011 Base Plans: Continue to provide for modular MTS designs to lower NASMP/Platform simulator life-cycle costs, integrate VOICE-Capable (SAF) component technologies, improve common instructor interface effectiveness and provide for multi-SAF exercise utilization. Continue to analyze, develop, and integrate open architecture components for FA-18C-F, MH-60R/S, UAS, E-2C/D & USMC mission areas, intelligent instructor operator components, TACAIR/MMA/ROBD common GUI initiatives, common threat system formats and Next Generation Threat System connectivity, Joint SAF and MCSMP TEN compatability, performance measurement, and AAR/debrief, thereby maximizing ROI for mission training station-related technology investments.					
SENSORS SENSORS: Integrate common IR and Forward Looking Infra-Red sensor simulation) with Government, Off the Shelf Software (GOTS). Perform risk reduction, advanced displays T&E, integration and production of Inter-service Common Sensor Model (ICSM) for Navy DMT and legacy devices. Demonstrate GOTS capability for cost-effective database materialization, and develop NAVAIR Portable Source Initiative (NPSI) specifications and processes for implementation on DMT, deployed trainers, legacy, and new visual system upgrade programs. Develop texture storage, sensor-environmental effects, Sensor-scene Environmental Radiometry Environment NPSI material reference processes/standards, and automated technology applications for Real Time (RT) publishing, RT shadows, cultural lighting, RT combat effects and very high-resolution visualization. FY 2009 Accomplishments: Integrated common IR and Forward Looking Infra-Red sensor simulation) with GOTS. Performed risk reduction, advanced displays T&E, integration and production of ICSM for Navy DMT and legacy devices. Demonstrated GOTS capability for cost-effective database materialization, and developed	0.360	0.479	0.325	0.000	0.325

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev		PROJECT 2124: Air Warfare Training		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
NPSI specifications and processes for implementation on DMT, deployed trainers, legacy, and new visual system upgrade programs. Developed texture storage, sensor-environmental effects, Sensor-scene Environmental Radiometry Environment NPSI material reference processes/standards, and automated technology applications for RT publishing, RT shadows, cultural lighting, RT combat effects and very high-resolution visualization.						
FY 2010 Plans: Continue to integrate common IR and Forward Looking Infra-Red sensor simulation) with GOTS. Perform risk reduction, advanced displays T&E, integration and production of ICSM for Navy DMT and legacy devices. Demonstrate GOTS capability for cost-effective database materialization, and develop NPSI specifications and processes for implementation on DMT, deployed trainers, legacy, and new visual system upgrade programs. Develop texture storage, sensor-environmental effects, Sensor-scene Environmental Radiometry Environment NPSI material reference processes/standards, and automated technology applications for RT publishing, RT shadows, cultural lighting, RT combat effects and very high-resolution visualization.						
FY 2011 Base Plans: Continue to integrate common IR and Forward Looking Infra-Red sensor simulation) with GOTS. Perform risk reduction, advanced displays T&E, integration and production of ICSM for Navy DMT and legacy devices. Demonstrate GOTS capability for cost-effective database materialization, and develop NPSI specifications and processes for implementation on DMT, deployed trainers, legacy, and new visual system upgrade programs. Develop texture storage, sensor-environmental effects, Sensor-scene Environmental Radiometry Environment NPSI material reference processes/standards, and automated technology applications for RT publishing, RT shadows, cultural lighting, RT combat effects and very high-resolution visualization.						
SYSTEM ENGINEERING & INTEGRATION		0.445	0.408	0.460	0.000	0.460

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev		PROJECT 2124: Air Warfare Training		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
SYSTEMS ENGINEERING & INTEGRATION: Integrate and test open architecture LVC components for Navy DMT, deployable readiness and rehearsal systems and training devices. Provide GOTS component TRL assessment for intelligent synthetic forces, tactical FUIs, and tactical scenario-control technologies. Demonstrate low-cost LVC capable DMT & Distributed Mission readiness Trainer (DMRT) configuratons, and virtual range technologies, while maintaining or increasing fidelity. Analyze GOTS/COTS alternatives for network centric warfare connectivity in the simulated battlespace, Network-centric Training Environment (NCTE) interoperability, while reducing training system life cycle cost. Ensure proper TRL levels for integrating software components.						
FY 2009 Accomplishments: Integrated and tested open architecture LVC components for Navy DMT, deployable readiness and rehearsal systems and training devices. Provided GOTS component TRL assessment for intelligent synthetic forces, tactical FUIs, and tactical scenario-control technologies. Demonstrated low-cost LVC capable DMT & DMRT configuratons, and virtual range technologies, while maintaining or increasing fidelity. Analyzed GOTS/COTS alternatives for network centric warfare connectivity in the simulated battlespace, NCTE interoperability, while reducing training system life cycle cost. Ensured proper TRL levels for integrating software components.						
FY 2010 Plans: Continue to integrate and test open architecture LVC components for Navy DMT, deployable readiness and rehearsal systems and training devices. Provide GOTS component TRL assessment for intelligent synthetic forces, tactical FUIs, and tactical scenario-control technologies. Demonstrate low-cost LVC capable DMT & DMRT configuratons, and virtual range technologies, while maintaining or increasing fidelity. Analyze GOTS/COTS alternatives for network centric warfare connectivity in the simulated battlespace, NCTE interoperability, while reducing training system life cycle cost. Ensure proper TRL levels for integrating software components.						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev		PROJECT 2124: Air Warfare Training		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Continue to integrate and test open architecture LVC components for Navy DMT, deployable readiness and rehearsal systems and training devices. Provide GOTS component TRL assessment for intelligent synthetic forces, tactical FUIs, and tactical scenario-control technologies. Demonstrate low-cost LVC capable DMT & DMRT configuratons, and virtual range technologies, while maintaining or increasing fidelity. Analyze GOTS/COTS alternatives for network centric warfare connectivity in the simulated battlespace, NCTE interoperability, while reducing training system life cycle cost. Ensure proper TRL levels for integrating software components.						
VISUALS VISUALS: AWTD visual engineering provides for risk mitigation and next generation visual system component test and evaluation for both stand-alone and small footprint deployable devices. Supporting the NASMP and Type/Model/Series (T/M/S) programs, advanced visual system display configurations are assessed and developed to include next generation technology. FY 2009 Accomplishments: Supported the NASMP and T/M/S visual research programs to include the development of advanced visual system display configurations using next generation technology for both stand-alone and small footprint deployable devices. FY 2010 Plans: Continue to support the NASMP and T/M/S visual research programs to include the development of advanced visual system display configurations using next generation technology for both stand-alone and small footprint deployable devices.		0.100	0.336	0.100	0.000	0.100

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy							DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>			PROJECT 2124: <i>Air Warfare Training</i>					
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
<i>FY 2011 Base Plans:</i> Continue to support the NASMP and T/M/S visual research programs to include the development of advanced visual system display configurations using next generation technology for both stand-alone and small footprint deployable devices.											
Accomplishments/Planned Programs Subtotals						1.706	1.766	1.665	0.000	1.665	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• APN/0705/1: <i>USMC Federation Simulators</i>	41.129	41.073	32.723	0.000	32.723	32.389	33.069	33.763	34.472	0.000	248.618
• APN/0705/2: <i>Fleet Aircrew Simulator Training (FAST)</i>	51.922	43.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	95.909
• APN/0705/3: <i>Naval Aviation Simulator Master Plan (NASMP)</i>	0.000	0.000	35.067	0.000	35.067	32.977	30.453	27.990	36.787	0.000	163.274
D. Acquisition Strategy											
AWTD is a 6.4 RDT&E joint technology transition program tied to the NASMP and the various platform simulation master plans with the purpose of transitioning advanced training and mission rehearsal technologies. AWTD provides risk mitigation, test and evaluation, and prototype development for stand-alone, distributed, and deployed training systems for the warfighter utilizing an Integrated Product Team (IPT) approach and a combination of reimbursable and direct cite Time and Materials (T&M) contracts.											
E. Performance Metrics											
NAWC-TSD: # of transitions to Fleet Platforms. For each transition, successful TRL testing and device Ready for Training (RFT) to Fleet platforms.											
NAWC-AD: Complete TRL & compliance testing for NASMP and Information Assurance.											
L3 Communications: Successful Interin Training Capability (ITC) testing or device RFT.											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>	PROJECT 2124: <i>Air Warfare Training</i>
Alion Sciences: Successful ITC and Contractor Final Inspection (CFI) testing or device RFT.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010																																																																																													
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 2124: <i>Air Warfare Training</i>																																																																																																
Product Development (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th rowspan="2">Cost Category Item</th> <th rowspan="2">Contract Method & Type</th> <th rowspan="2">Performing Activity & Location</th> <th rowspan="2">Total Prior Years Cost</th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th rowspan="2">Cost To Complete</th> <th rowspan="2">Total Cost</th> <th rowspan="2">Target Value of Contract</th> </tr> <tr> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> </tr> <tr> <td>Systems Engineering (Adv Sensor)</td> <td>Various/ Various</td> <td>NAWC TSD ORLANDO, FL</td> <td align="right">9.421</td> <td align="right">0.030</td> <td>Nov 2009</td> <td align="right">0.352</td> <td>Nov 2010</td> <td align="right">0.000</td> <td></td> <td align="right">0.352</td> <td align="right">0.000</td> <td align="right">9.803</td> <td>Continuing</td> </tr> <tr> <td>Systems Engineering (ITST)</td> <td>Various/ Various</td> <td>NAWC TSD ORLANDO, FL</td> <td align="right">4.312</td> <td align="right">0.912</td> <td>Feb 2010</td> <td align="right">0.733</td> <td>Feb 2011</td> <td align="right">0.000</td> <td></td> <td align="right">0.733</td> <td align="right">0.000</td> <td align="right">5.957</td> <td>Continuing</td> </tr> <tr> <td>Systems Engineering (Visuals)</td> <td>Various/ Various</td> <td>NAWC AD PAX RIVER, MD</td> <td align="right">0.943</td> <td align="right">0.300</td> <td>Feb 2010</td> <td align="right">0.143</td> <td>Feb 2011</td> <td align="right">0.000</td> <td></td> <td align="right">0.143</td> <td align="right">0.000</td> <td align="right">1.386</td> <td>Continuing</td> </tr> <tr> <td>Systems Engineering (Synthetic)</td> <td>Various/ Various</td> <td>NPS MONTEREY, CA</td> <td align="right">0.100</td> <td align="right">0.100</td> <td>Nov 2009</td> <td align="right">0.100</td> <td>Nov 2010</td> <td align="right">0.000</td> <td></td> <td align="right">0.100</td> <td align="right">0.000</td> <td align="right">0.300</td> <td>Continuing</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td><td align="right">14.776</td><td align="right">1.342</td><td></td><td align="right">1.328</td><td></td><td align="right">0.000</td><td></td><td align="right">1.328</td><td align="right">0.000</td><td align="right">17.446</td><td></td> </tr> </table>														Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Systems Engineering (Adv Sensor)	Various/ Various	NAWC TSD ORLANDO, FL	9.421	0.030	Nov 2009	0.352	Nov 2010	0.000		0.352	0.000	9.803	Continuing	Systems Engineering (ITST)	Various/ Various	NAWC TSD ORLANDO, FL	4.312	0.912	Feb 2010	0.733	Feb 2011	0.000		0.733	0.000	5.957	Continuing	Systems Engineering (Visuals)	Various/ Various	NAWC AD PAX RIVER, MD	0.943	0.300	Feb 2010	0.143	Feb 2011	0.000		0.143	0.000	1.386	Continuing	Systems Engineering (Synthetic)	Various/ Various	NPS MONTEREY, CA	0.100	0.100	Nov 2009	0.100	Nov 2010	0.000		0.100	0.000	0.300	Continuing	Subtotal			14.776	1.342		1.328		0.000		1.328	0.000	17.446	
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract																																																																																											
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Subtotal			14.776	1.342		1.328		0.000		1.328	0.000	17.446																																																																																												
Remarks																																																																																																								
Support (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th rowspan="2">Cost Category Item</th> <th rowspan="2">Contract Method & Type</th> <th rowspan="2">Performing Activity & Location</th> <th rowspan="2">Total Prior Years Cost</th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th rowspan="2">Cost To Complete</th> <th rowspan="2">Total Cost</th> <th rowspan="2">Target Value of Contract</th> </tr> <tr> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> </tr> <tr> <td>Integrated Logistics Support</td> <td>Various/ Various</td> <td>Various Various</td> <td align="right">1.529</td> <td align="right">0.184</td> <td>Dec 2009</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">1.713</td> <td>Continuing</td> </tr> <tr> <td>Support Equipment Development</td> <td>Various/ Various</td> <td>Various Various</td> <td align="right">0.020</td> <td align="right">0.000</td> <td></td> <td align="right">0.020</td> <td>Dec 2010</td> <td align="right">0.000</td> <td></td> <td align="right">0.020</td> <td align="right">0.000</td> <td align="right">0.040</td> <td>Continuing</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td><td align="right">1.549</td><td align="right">0.184</td><td></td><td align="right">0.020</td><td></td><td align="right">0.000</td><td></td><td align="right">0.020</td><td align="right">0.000</td><td align="right">1.753</td><td></td> </tr> </table>														Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Integrated Logistics Support	Various/ Various	Various Various	1.529	0.184	Dec 2009	0.000		0.000		0.000	0.000	1.713	Continuing	Support Equipment Development	Various/ Various	Various Various	0.020	0.000		0.020	Dec 2010	0.000		0.020	0.000	0.040	Continuing	Subtotal			1.549	0.184		0.020		0.000		0.020	0.000	1.753																													
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract																																																																																											
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Integrated Logistics Support	Various/ Various	Various Various	1.529	0.184	Dec 2009	0.000		0.000		0.000	0.000	1.713	Continuing																																																																																											
Support Equipment Development	Various/ Various	Various Various	0.020	0.000		0.020	Dec 2010	0.000		0.020	0.000	0.040	Continuing																																																																																											
Subtotal			1.549	0.184		0.020		0.000		0.020	0.000	1.753																																																																																												
Remarks																																																																																																								

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 2124: <i>Air Warfare Training</i>					
Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various/ Various	Vaious Various	5.643	0.125	Dec 2009	0.100	Dec 2010	0.000		0.100	0.000	5.868	Continuing
Subtotal			5.643	0.125		0.100		0.000		0.100	0.000	5.868	
Remarks													
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various/ Various	Various Various	0.194	0.094	Dec 2009	0.202	Dec 2010	0.000		0.202	0.000	0.490	Continuing
Travel	Various/ Various	Various Various	0.445	0.021	Dec 2009	0.015	Dec 2010	0.000		0.015	0.000	0.481	Continuing
Subtotal			0.639	0.115		0.217		0.000		0.217	0.000	0.971	
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			22.607	1.766		1.665		0.000		1.665	0.000	26.038	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy							DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>			PROJECT 2124: <i>Air Warfare Training</i>			
	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks									

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Exhibit R-4. RDT&E Schedule Profile: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy
BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0204571N: Consolidated Trng Sys Dev

PROJECT	
---------	--

2124: *Air Warfare Training*

Fiscal Year					2009				2010				2011				2012				2013				2014				2015							
					1	2	3	4	1		3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
A/WTD Support of Naval Aviation Simula. Master Plan (NASMP)					RISK MITIGATION & TECHNOLOGY COMPONENT TRANSITION TO CSP, NASMP, PLATFORMS, DISTRIBUTED & DEPLOYED SYSTEMS & LVC																															
Acquisition 6.4 RDT&E Milestones							Trans to MMA			Trans to NASMP CSP			Trans to NCTE			Trans to NASMP CSP					Trans to JFC-JMTC					Trans to NCTE			Trans to JMTC							
ATTIF Modular/Open Products types							PMI & Visuals			Visuals and Models			DMRT			NET SIMS					NET SIMS					NET SIMS					NET SIMS					
ATTIF Integ. test & prototype SOFTWARE & GOTS Weapons Server and Network Technologies							E2EDRT			MMA			LVC			MMA/NCTE					JMTC					NCTE					LVC			JMTC		
Instructor/Human Systems Integration and Intell. workload reduction (I2WRT) support tools																																				
Test & Evaluation Milestones																																				
TACAIR/MARITIME Net Ready Technologies																																				
CDMTS & AARS Spec/Demos																																				
Sensor Stimulation (3)/ Sensor Fusion																																				
AARS w/ Automated Performance Measures (PM)																																				
VISUAL Systems Common Sensor Models/ Environments Advanced Sensor-capable MPSI, collaborative sensor/ environment depiction for MR and DMRT																																				
Deployed SIMS (DMT/Sensor Capable)																																				

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>	PROJECT 2124: <i>Air Warfare Training</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
AWTD Support of Naval Aviation Simulation Master Plan (NASMP)	1	2009	4	2015
Acquisition 6.4 RDT&E Milestones	4	2009	4	2015
ATTIF Modular/Open Product Types - Integration, Test and Prototype	4	2009	4	2015
Software & GOTS - Weapons Server and Network Technologies	1	2009	4	2015
Software & GOTS - Instructor/Human Systems Integration and Intelligence workload	1	2009	4	2015
Test and Evaluation Milestones - TACAIR/MARITIME Net ready Technologies	1	2009	4	2015
Test and Evaluation Milestones - CDMTS & AARS Spec/Demos	1	2009	4	2010
Test and Evaluation Milestones - Sensor stimulation (3)/Sensor Fusion	1	2009	4	2015
Test and Evaluation Milestones - AARS w/automated Performance Measure (PM)	4	2009	4	2013
Test and Evaluation Milestones - Visual Systems - Common Sensor Models/ Environments, Advanced sensor-capable NPSI, collaborative sensor/environmental depiction for MR & DMRT	1	2009	2	2013
Test and Evaluation Milestones - Deployed SIMS (DMT/Sensor capable)	1	2010	4	2014

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 3087: <i>Curriculum & Trainer Development</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3087: <i>Curriculum & Trainer Development</i>	4.467	18.963	24.146	0.000	24.146	22.090	14.492	4.237	4.340	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Total Ship Training Capability supports DoD Training Transformation and the updated Surface Warfare Training Manual COMNAVSURFOR INST 3502.01D (1 July 07) requirements which call for continuous learning and realistic mission training environments with measurable warfighter performance linked to readiness across the training continuum from in-port CONUS to in-theater mission rehearsal. TSTC Spiral 1 ship and shore based capabilities are critical to accomplishing Fleet Training Board of Directors strategy and objectives for warfighting performance improvements in the areas of ASW, BMD, and Surface Warfare and Information Warfare improvements. The TSTC Combat System Trainer (CST) enhancements to ship and shore trainers shall employ a spiral development process to allow continuous incremental implementation of core training system functionality and critical warfighting training capabilities in multiple mission areas as prioritized by the Fleet. TSTC will improve upon the current embedded trainer and interface interoperability limitations and model databases by developing the requisite architecture and associated computer programs to facilitate the transition to HLA and common modeling, scenario generation and control and assessment. Migration to TSTC is required to ensure continued, persistent FST interoperability via the NTCE. TSTC will integrate existing and emergent onboard training and assessment system capabilities to simulate realistic, train like you fight, combat-like conditions across combat systems, engineering, damage control and navigation systems. It shall provide a continuous shipboard organic learning environment through On-Demand, Just In Time, scenario-driven, Objective Based Training, and mission rehearsal capabilities initially available in port, and ultimately underway and in-theater.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Curriculum & Trainer Development	4.467	18.963	24.146	0.000	24.146
Funds development of ship and shore TSTC core capabilities. TSTC shall be implemented as a System of Systems (SoS) capability. In the near term, TSTC development is focused on Combat Systems improvements and Navigation and Engineering trainer integration. In the long term, TSTC may expand to include Damage Control, Logistics, Aviation, Visit, Board, Search, and Seizure, Medical, Sentry/					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev		PROJECT 3087: Curriculum & Trainer Development		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Lookout, Intelligence, and Security Force training. Development of TSTC Spiral 1 includes development of the completely redesigned, re-architected, and enhanced CST with the following characteristics: decoupled models and entity database; FST HLA compatibility; FST filtering improved training system usability; readiness based assessment objective based planning; and high band width encryption. TSTC shall integrate internal environments and interoperate with external environments via the NCTE. The TSTC common integrating element will be the Training Management System (TMS) capability. Establishing the architecture of the TMS is also part of TSTC Spiral 1 development. The need for transforming training is documented within the Office of Force Transformation Military Transformation Initiative, DoD Training Transformation Plan, the Chief of Naval Operations Fleet Response Plan, and Commander United States Fleet Forces Command Fleet Readiness Training Plan. TSTC efforts include scenario development, knowledge management, common environment system/software engineering, technical system design, software design, safety assessment, program management, software development, system integration, test and evaluation and logistics support. Prototypes of the various TSTC hardware and software subsystems will be designed and documented in design specifications.						
FY 2009 Accomplishments: Accomplishments include: Definition of TSTC Spiral 1 identified by the draft Capabilities Development Document as a subset of the TSTC Initial Capabilities Document. TSTC FY 09 efforts include overarching architecture definition/development, configuration management, integrated logistics efforts, software development specifications, system Test and Evaluation (T&E) plans, and certification plans. TSTC component definition includes planning services, training objectives, training scenario, data collection, debrief material, permission to train, and knowledge management. TSTC interfaces definition to platform unique sensor, weapon and combat system elements like AEGIS Advanced Capability Build (ACB14). The TSTC ICD defines TSTC as the CST program targeted to meet COMNAVSURFORs requirements for synthetic combat systems crew training for AEGIS modernization, CVN 78, and all subsequent ships after FY 14. TSTC supports DoD Training Transformation and the updated Surface Warfare Training Manual COMNAVSURFOR						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev		PROJECT 3087: Curriculum & Trainer Development		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
INST 3502.01D (1 July 07) requirements which call for continuous learning and realistic mission training environments with measurable warfighter performance linked to readiness across the training continuum for inport CONUS to in-theater mission rehearsal. TSTC Spiral 1 is the cornerstone of shipboard embedded training and critical to accomplishing Fleet strategy and objectives for warfighting performance improvements in the areas of ASW, BMD, and Surface Warfare and Information Warfare improvements within the Open Architecture and COTS modernization standards for shipboard systems in FY 14.						
FY 2010 Plans: Planned Accomplishments: Commence overall TSTC design. For all identified requirements for TSTC Baseline 1, development of TSTC will start the Design Phase for the Training Management Services (TMS) Services. The combat system stimulation elements of the CST component support the stimulation of a training environment for the AEGIS modernization and CVN 78 platforms. ASW, BMD, IW enhanced Warfighter capabilities and requirements identified in FY 09 shall start development. Integration of the Service Oriented Architecture elements of TMS shall start design phase to allow integration of planning and assessment tools into shipboard training systems. Requirements engineering for the SSDS CVNs.						
FY 2011 Base Plans: Planned Accomplishments - Continue development, prototyping and element testing.						
Accomplishments/Planned Programs Subtotals		4.467	18.963	24.146	0.000	24.146

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev				PROJECT 3087: Curriculum & Trainer Development			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• OPN 276200: (Surface (N86) BFTT/TSTC portion only)	20.950	24.095	21.642	0.000	21.642	22.576	23.684	28.561	32.007	0.000	173.515
D. Acquisition Strategy											
The TSTC acquisition strategy for system development utilizes the spiral development model, as mandated by OSD and incremental acquisition and fielding, utilizing commercial off-the-shelf technology to the extent possible.											
E. Performance Metrics											
NSWC Dam Neck: # of BFTT/TSTC software and hardware product improvements and new capabilities. Successful design, development, and testing of product improvements and new capabilities. Site acceptance of product improvements with no Priority 1 or 2 problem reports.											
NSWC Dahlgren: # of Test events and Training System interface problem resolutions documented. Successful application of system engineering processes. Safety Reviews in direct support of Element Certifications. Completion of 1 upgrade per year.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 3087: <i>Curriculum & Trainer Development</i>					
 Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Development	C/CPFF	VARIOUS VARIOUS	0.000	2.200	Mar 2010	0.600	Mar 2011	0.000		0.600	0.000	2.800	Continuing
Ship Integration	Various/ Various	VARIOUS VARIOUS	0.000	0.000		0.000		0.000		0.000	0.000	0.000	Continuing
Systems Engineering	WR	NSWC PHD/ CDSA/NUWC Newport/NSWC Dahlgren/ NAVSEA VARIOUS	1.913	2.657	Jan 2010	1.754	Dec 2010	0.000		1.754	0.000	6.324	Continuing
Subtotal			1.913	4.857		2.354		0.000		2.354	0.000	9.124	
Remarks													
 Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	WR	NSWC PHD/ CDSA/NUWC Newport/NSWC Dahlgren/ NAVSEA 02	0.555	11.412	Mar 2010	16.676	Mar 2011	0.000		16.676	0.000	28.643	Continuing
	WR		0.548	0.000		0.000		0.000		0.000	0.000	0.548	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
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Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Documentation		NSWC PHD/ CDSA/NUWC Newport/NSWC Dahlgren/ NAVSEA 02											
Subtotal			1.103	11.412		16.676		0.000		16.676	0.000	29.191	
Remarks													
Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC PHD/ CDSA/Various VARIOUS	0.400	1.070	Jan 2010	2.558	Dec 2010	0.000		2.558	0.000	4.028	Continuing
Subtotal			0.400	1.070		2.558		0.000		2.558	0.000	4.028	
Remarks													

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 3087: <i>Curriculum & Trainer Development</i>					
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Services	WR	CDSA/NSWC Dahlgren/Various VARIOUS	1.000	1.624	Jan 2010	2.558	Jan 2011	0.000		2.558	0.000	5.182	Continuing
DAWDF	Various/ Various	VARIOUS VARIOUS	0.051	0.000		0.000		0.000		0.000	0.000	0.051	Continuing
Subtotal			1.051	1.624		2.558		0.000		2.558	0.000	5.233	
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			4.467	18.963		24.146		0.000		24.146	0.000	47.576	
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0204571N: Consolidated Trng Sys Dev

PROJECT

3087: Curriculum & Trainer Development

Build	FY2009				F2010				FY2011				FY2012				FY2013				FY2014				FY2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TSTC (ACB 14)					△	△	△		△			△				△		△		DTEDA				△	△	△	△	
					CID	MSR	SRR		SFR			NDR				COR								△	△	△	△	
					Served																			△	△	△	△	
																								△	△	△	△	

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>	PROJECT 3087: <i>Curriculum & Trainer Development</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
TSTC CDD DEVELOPMENT/APPROVAL	1	2010	1	2010
TSTC MILESTONE B	2	2010	2	2010
TSTC SRR	3	2010	3	2010
TSTC SFR	1	2011	1	2011
TSTC DEVELOPMENT PDR	4	2011	4	2011
TSTC CDR	4	2012	4	2012
TSTC DT/EOA	2	2013	3	2015
TSTC CERTIFICATION	1	2015	1	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>				PROJECT 3093: <i>TACTS/LATR Replacement</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3093: <i>TACTS/LATR Replacement</i>	2.923	6.306	16.119	0.000	16.119	13.350	8.991	9.030	9.217	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification
TCTS will provide the Navy a replacement for major portions of the TACTS and LATR. TCTS will also provide fleet deployable training for at-sea training and tactics development. By providing a rangeless capability, the system will greatly increase the area where live instrumented training can be conducted. Initial fielding of a Non-Developmental Item (NDI) Pod system was at NAS Key West. The program incorporates an evolutionary development (incremental) towards a system capable of supporting a broad spectrum of naval platforms through weapons simulations, participant weapons system stimulation, open architecture and a high capacity/long range secure data link. The Milestone Decision Authority (MDA) approved program rebaseline on May 23, 2005.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
TACTS/LATR REPLACEMENT	2.923	6.306	16.119	0.000	16.119
TCTS: Qualified and completed the NDI Rangeless Pod system fielded at NAS Key West, including the complete Integrated Logistics products and training. Developed and implemented track exchange interface between TCTS live monitor and TACTS Control and Computation Subsystem (CCS). Defined Test and TENA compliant interface between TCTS and an Advance Display System. Developed F/A-18 (C/D/E/F) and AV-8B Internal Subsystem (IS) and began qualification testing. Initiated development of the Fixed Ground Subsystem and data link uplink control for fielding at larger navy training ranges. Develop and deliver Integrated Logistics products for the IS and for fielding the TCTS system for deployed and fixed Range applications. Initiated the development of a Rack-Mounted subsystem for use on rotary wing and transport aircraft. Continue development of the Advanced Data Link (ADL) waveform and the JTRS advance data link. Address and fund development of the JTRS radio and synchronize the budget to schedule. Develop shipboard ground subsystem and related training range integration.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy							DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev			PROJECT 3093: TACTS/LATR Replacement				
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2009 Accomplishments:</i> Completed RIW Critical Design Review (CDR). RIW team received JTRS Small Form Fit (SFF-K) Hardware Development Environment (HDE) for Software (SW) update to begin RIW integration with SFF-K. SFF-K completed SW review with planned SW PDR by end of FY (Hardware PDR completed). Conducted development evaluations to support ADL integration with TCTS participant and ground subsystem: SOW and Specification development, pre-SRR activities.</p> <p><i>FY 2010 Plans:</i> Complete SFF-K CDR with transition to development of JTRS SFF-K radio. Release RFP for ADL integration contract with associated activities to support contract award. Coordinate ADL development with NSA to support encryption certification.</p> <p><i>FY 2011 Base Plans:</i> Planned delivery of JTRS SFF-K Engineering Development Model (EDM) to support integration of ADL with TCTS participant and ground subsystems. Conduct TCTS ADL integration PDR. Coordinate ADL development with NSA to support encryption certification.</p>											
Accomplishments/Planned Programs Subtotals							2.923	6.306	16.119	0.000	16.119
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• OPN/4204: Weapons Range Support Equipment (WRSE)/TCTS	7.637	5.338	5.200	0.000	5.200	5.342	5.465	5.604	5.682	0.000	40.268
	27.788	23.787	7.579	0.000	7.579	11.322	14.151	15.480	16.079	0.000	116.186

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy										DATE: February 2010	
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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• APN/0725: Other Production Charges/Tactical Combat Training System (TCTS)											
D. Acquisition Strategy											
TCTS will employ an evolutionary incremental acquisition strategy to procure base NDI Systems and provide for the development of the system to meet the full ORD requirements. TCTS is a cooperative program with the USAF P5 Combat Training System (CTS) program. The USAF awarded a 10-year contract in June 2003.											
E. Performance Metrics											
Rockwell Collins, Inc: RIW hosted on JTRS SFF-K. RIW successfully operating on JTRS SFF-K hardware. General Dynamics: NSA approved JTRS SFF-K . Successful EDM testing of JTRS SFF-K performance requirements with NSA and JTE.											
Cubic DAI: Integration of JTRS SFF-K with TCTS equipment. Full integration of JTRS SFF-K with TCTS equipment.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev					PROJECT 3093: TACTS/LATR Replacement			
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPAF	CUBIC DEFENSE APPL SAN DIEGO, CA	9.811	0.000		0.000		0.000		0.000	0.000	9.811	Continuing
Award Fees	Various/ Various	VARIOUS VARIOUS	1.090	0.000		0.000		0.000		0.000	0.000	1.090	Continuing
Subtotal			10.901	0.000		0.000		0.000		0.000	0.000	10.901	
Remarks													
Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	SS/CPAF	CUBIC DEFENSE APPL SAN DIEGO, CA	10.391	1.825	Nov 2009	10.960	Nov 2010	0.000		10.960	0.000	23.176	Continuing
Software Development	SS/CPAF	ROCKWELL COLLINS CEDAR RAPIDS, IA	1.772	2.790	Nov 2009	0.000		0.000		0.000	0.000	4.562	Continuing
Integrated Logistics Support	Various/ Various	VARIOUS VARIOUS	0.503	0.045	Nov 2009	1.907	Nov 2010	0.000		1.907	0.000	2.455	Continuing
	SS/CPAF		0.914	0.000		0.000		0.000		0.000	0.000	0.914	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev					PROJECT 3093: TACTS/LATR Replacement	

Support (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support		CUBIC DEFENSE APPL SAN DIEGO, CA											
Award Fees	Various/ Various	VARIOUS VARIOUS	1.530	0.000		0.000		0.000		0.000	0.000	1.530	Continuing
Software Development	SS/CPAF	GENERAL DYNAMICS SCOTTSDALE, AZ	3.800	0.000		1.748	Nov 2010	0.000		1.748	0.000	5.548	Continuing
Subtotal			18.910	4.660		14.615		0.000		14.615	0.000	38.185	

Remarks

Test and Evaluation (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various/ Various	VARIOUS VARIOUS	3.157	0.225	Nov 2009	0.300	Nov 2010	0.000		0.300	0.000	3.682	Continuing
Operational Test & Evaluation	WR	OPER T&E NORFOLK, VA	0.043	0.000		0.000		0.000		0.000	0.000	0.043	Continuing
Subtotal			3.200	0.225		0.300		0.000		0.300	0.000	3.725	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
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Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks													
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various/ Various	VARIOUS VARIOUS	0.977	0.535	Nov 2009	0.150	Nov 2010	0.000		0.150	0.000	1.662	Continuing
Government Engineering Support	Various/ Various	VARIOUS VARIOUS	4.612	0.884	Nov 2009	1.052	Nov 2010	0.000		1.052	0.000	6.548	Continuing
Travel	Various/ Various	VARIOUS VARIOUS	0.014	0.002	Nov 2009	0.002	Nov 2010	0.000		0.002	0.000	0.018	Continuing
Subtotal			5.603	1.421		1.204		0.000		1.204	0.000	8.228	
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			38.614	6.306		16.119		0.000		16.119	0.000	61.039	
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy																								DATE: February 2010								
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development												R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev												PROJECT 3093: TACTS/LATR Replacement								
Fiscal Year					2009				2010				2011				2012				2013				2014				2015			
					1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones									Phase 5 MSB											Phase 4 MSC												
Acquisition Phase																																
Phase 1 NDI - Trans. GS/AS)																																
Phase 2 Internal Subsystem (IS)																																
Rack-Mount Subsystem																																
Phase 4 Advanced Datalink																																
Phase 5 Battle Group																																
Internal Subsystem Dev																																
Rack-Mount Subsystem Dev																																
Ground Subsystem Dev																																
Advanced Datalink Dev																																
Test & Evaluation Milestones																																
Phase 1 (NDI)																																
Phase 2 Internal Subsystem (IS)																																
Rack-Mounted Subsystem (RS)																																
System: CVW-5																																
Fixed Range																																
Production Milestones																																
Phase 1 NDI - Transportable (GS,AS)																																
Phase 2 Inter Subsystems (IS)																																
Rack Mounted Subsystem (RS)																																
Phase 4 Advanced Datalink																																
Phase 5 Battle Group																																
Deliveries IOC																																

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>	PROJECT 3093: <i>TACTS/LATR Replacement</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Acquisition Milestones - Phase 5 MS B	1	2010	1	2010
Acquisition Milestones - Phase 4 MS C	4	2012	4	2012
Acquisition Phase - Phase 1 NDI - Transportable (GS, AS)	1	2009	4	2011
Acquisition Phase - Phase 2 Internal Subsystem (IS)	1	2009	4	2011
Acquisition Phase - Phase 5 Battle Group	1	2011	4	2015
Acquisition Phase - Advanced Datalink Development	1	2009	4	2015
Production Milestones - Phase 1 NDI - Transportable (GS, AS)	1	2009	4	2011
Production Milestones - Phase 2 Internal Subsystem (IS)	1	2009	4	2011
Production Milestones - Rack-Mount Subsystem	1	2009	4	2011
Production Milestones - Phase 4 Advanced Datalink	4	2010	4	2015
Production Milestones - Phase 5 Battle Group	1	2012	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0204571N: Consolidated Trng Sys Dev				PROJECT 9999: Congressional Adds			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9999: Congressional Adds	2.632	2.390	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	11.550
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
Note Congressional Add											
A. Mission Description and Budget Item Justification Total Ship Training System (TSTS) PU 3087A: FY08 Congressional Add in the amount of \$1.542M supports development of a voice command recognition and assessment capability to the TSTS Support System and completes preparation for demonstration in FY09 (\$1.037M). The voice recognition capability is to be used to monitor the performance of Officers during a training scenario and to support the automated assessment of their performance. This will reduce the shipboard manpower requirements to run and assess a shipboard team training event. ASW: Congressional Add. NAVAIR High Fidelity Oceanographic Library: Congressional Add.											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010				
Congressional Add: NAVAIR High Fidelity Oceanographic Library FY 2010 Plans: Congressional Add.						0.000	2.390				
Congressional Add: TOTAL SHIP TRAINING SYSTEM (TSTS)						1.037	0.000				

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0204571N: <i>Consolidated Trng Sys Dev</i>	PROJECT 9999: <i>Congressional Adds</i>
B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
<i>FY 2009 Accomplishments:</i> The FY 09 Congressional Add in the amount of \$1.037M provides funding for the demonstration of the voice command recognition and assessment capability to the TSTS. The voice recognition capability is to be used to monitor the performance of Officers during a training scenario and to support the automated assessment of their performance. This will reduce the shipboard manpower requirements to run and assess a shipboard team training event.		
Congressional Add: ASW TRAINING INTEROPERABILITY ENTERPRISE DEMO TEST <i>FY 2009 Accomplishments:</i> ASW: The SupWG (subgroup of SupFS) supplies open architecture training products, developed through a successful build-test-build, best-of-breed process to support rapid technology improvement and deployment. SupWG training technology is a scalable, configurable, hardware independent modular software solution, designed to support both deployed combat systems and shore based training systems. SupWG products support a wide range of USW platforms including AN/SQQ-89A(V), 15 Surface Combatant; Improved Performance Sonar Surface Combatant; Littoral Combat Ship ASW Mission Package; DDG1000 Zumwalt Class; P-8A Poseidon (formerly the Multimission Maritime Aircraft.	1.595	0.000
Congressional Adds Subtotals	2.632	2.390
C. Other Program Funding Summary (\$ in Millions)		
N/A		
D. Acquisition Strategy		
Not required for Congressional Adds.		
E. Performance Metrics		
Not required for Congressional Adds.		

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