

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0604759N: Major T&E Investment							
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	51.167	51.629	37.522	0.000	37.522	39.441	36.364	37.460	38.481	Continuing	Continuing
2195: T & E Investment	41.393	44.658	37.522	0.000	37.522	39.441	36.364	37.460	38.481	Continuing	Continuing
9999: Congressional Adds	9.774	6.971	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	30.763
A. Mission Description and Budget Item Justification											
<p>This project improves visibility and commonality of Test and Evaluation (T&E) resources across the Service for Major T&E investment funding. These funds correct major deficiencies, improve T&E capabilities, and increase T&E support effectiveness. The T&E Investment project provides improved test capabilities at the following test facilities: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTECE), Andros Island, Bahamas; the Nanoose and Dabob ranges of the Naval Undersea Warfare Center Division Keyport (NAVUNSEAWARCENDIV Keyport), Keyport, WA; the Sea Range, Land Range, Electronic Combat Range, Targets, Ordnance T&E Facility, Test Wing Pacific, and the Air Vehicle Modification and Instrumentation facility located at the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point Mugu, CA and China Lake, CA; and the Atlantic Test Range, Air Combat Environment T&E Facility, Electromagnetic Environmental Effects, Air Vehicle Modification and Instrumentation facility, Test Wing Atlantic, Targets, and the Propulsion Systems Evaluation Facility (PSEF) located at the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD and the test capabilities located at the Pacific Missile Range Facility, Kauai, HI.</p>											
<p>This program element includes \$.207 million for the Defense Acquisition Development Fund (DAWDF) in FY 2009.</p>											

UNCLASSIFIED

R-1 Line Item #142

Page 1 of 12

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0604759N: Major T&E Investment			
BA 6: RDT&E Management Support					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	51.525	44.844	0.000	0.000	0.000
Current President's Budget	51.167	51.629	37.522	0.000	37.522
Total Adjustments	-0.358	6.785	37.522	0.000	37.522
• Congressional General Reductions		-0.215			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		7.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.712	0.000			
• SBIR/STTR Transfer	-1.069	0.000			
• Program Adjustments	0.000	0.000	37.522	0.000	37.522
• Rate/Misc Adjustments	-0.001	0.000	0.000	0.000	0.000
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 9999: Congressional Adds				FY 2009	FY 2010
Congressional Add: Joint Mission Battle-Space to Support Net-Ready Key Performance Parameters				0.000	1.992
Congressional Add: NETWORK EXPANSION & INTEGRATION OF NAVY/NASA RDT&E				4.787	0.000
Congressional Add: Air Combat Environment Test and Evaluation Facilit				2.992	0.000
Congressional Add: Improved Interoperability R&D to Support NAVAIR an				1.995	4.979
Congressional Add Subtotals for Project: 9999				9.774	6.971
Congressional Add Totals for all Projects				9.774	6.971
Change Summary Explanation					
Technical: Not applicable.					
Schedule: Not applicable.					

UNCLASSIFIED

R-1 Line Item #142

Page 2 of 12

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604759N: <i>Major T&E Investment</i>	
FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.		

UNCLASSIFIED

R-1 Line Item #142

Page 3 of 12

UNCLASSIFIED

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 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0604759N: <i>Major T&E Investment</i>				PROJECT 2195: <i>T & E Investment</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
2195: <i>T & E Investment</i>	41.393	44.658	37.522	0.000	37.522	39.441	36.364	37.460	38.481	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>This project improves visibility and commonality of Test and Evaluation (T&E) resources across the Service for Major T&E investment funding. These funds correct major deficiencies, improve T&E capabilities, and increase T&E support effectiveness. The T&E Investment project provides improved test capabilities at the following test facilities: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTEC), Andros Island, Bahamas; the Nanoose and Dabob ranges of the Naval Undersea Warfare Center Division Keyport (NAVUNSEAWARCENDIV Keyport), Keyport, WA; the Sea Range, Land Range, Electronic Combat Range, Targets, Ordnance T&E Facility, Test Wing Pacific, and the Air Vehicle Modification and Instrumentation facility located at the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point Mugu, CA and China Lake, CA; and the Atlantic Test Range, Air Combat Environment T&E Facility, Electromagnetic Environmental Effects, Air Vehicle Modification and Instrumentation facility, Test Wing Atlantic, Targets, and the Propulsion Systems Evaluation Facility (PSEF) located at the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD and the test capabilities located at the Pacific Missile Range Facility, Kauai, HI.</p> <p>This project unit includes \$.207 million for the Defense Acquisition Development Fund (DAWDF) in FY 2009.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
UNDERSEA RANGE INVESTMENTS						11.064	9.989	16.324	0.000	16.324	
<p>This effort funds the modernization, upgrades, and new test capabilities required at the Navy's Major Range Test Facility Base (MRTFB) undersea ranges Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTEC), Andros Island, Bahamas; the Nanoose and Dabob ranges of the Naval Undersea Warfare Center Division Keyport (NAVUNSEAWARCENDIV Keyport), Keyport, WA.</p>											

UNCLASSIFIED

R-1 Line Item #142

Page 4 of 12

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
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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></p> <ul style="list-style-type: none">- Completed the development of new range post-processing software and modernized hardware at AUTC.- Continued the modernization and upgrade of voice and data communications equipment at AUTC.- Continued the modernization and upgrade of acoustic acquisition, tracking and processing systems and hydrophone arrays at Nanoose & Dabob.- Continued the development and installation of broadband capable bottom mounted targets at Nanoose and Dabob.- Continued the minor upgrade and modernization of test capabilities at AUTC, Nanoose and Dabob. <p><i>FY 2010 Plans:</i></p> <ul style="list-style-type: none">- Continue all efforts of FY 2009, less those noted as completed above.- Complete the modernization and upgrade of voice and data communications equipment at AUTC.- Initiate the refurbishment and service life extension of a range vessel at AUTC. This effort includes conducting a survey of the vessel in FY10 in preparation for a dry dock period in FY11 and FY12.- Initiate the modernization and upgrade of the aircraft sonobuoy simulation and stimulation capability at AUTC.- Initiate the modernization and upgrade of the electronic warfare (EW) simulator capability at AUTC.- Initiate the modernization and upgrade of the optical tracking and surveillance system at Nanoose and Dabob. <p><i>FY 2011 Base Plans:</i></p> <ul style="list-style-type: none">- Continue all efforts of FY 2010, less those noted as complete above.- Continue the refurbishment and service life extension of a range vessel at AUTC. This effort includes costs incurred during the dry dock period with the majority of that cost in FY11.- Complete the modernization and upgrade of the aircraft sonobuoy simulation and stimulation capability at AUTC.						

UNCLASSIFIED

R-1 Line Item #142

Page 5 of 12

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support		R-1 ITEM NOMENCLATURE PE 0604759N: Major T&E Investment		PROJECT 2195: T & E Investment		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<ul style="list-style-type: none">- Complete the modernization and upgrade of the electronic warfare (EW) simulator capability at AUTEK.- Complete the modernization and upgrade of acoustic acquisition, tracking and processing systems and hydrophone arrays at Nanoose & Dabob.- Initiate the overhaul of a range craft. This effort includes cost for the craft to be in dry dock in FY11.- Initiate the acquisition of a new range recovery system at Nanoose and Dabob.						
OPEN AIR RANGE INVESTMENTS This effort funds the modernization and upgrades of existing capabilities and the development of new test capabilities required at the MRTFB open air ranges at the Naval Air Warfare Center Aircraft Division (AD), Patuxent River, MD, Naval Air Warfare Center Weapons Division (WD), Point Mugu, CA and China Lake, CA and Pacific Missile Range Facility (PMRF), Kauai, HI. FY 2009 Accomplishments: <ul style="list-style-type: none">- Completed the modernization and upgrade of the mobile radio communications system at WD.- Completed the modernization and upgrade of the Time Space Position Information (TSPI) tracking radars at WD.- Completed the modernization and upgrade of the communications links from San Nicolas Island to the mainland at WD.- Completed the upgrade of digital video capabilities at WD.- Completed the modernization of the Global Positional System (GPS) aircraft tracking systems at AD and WD.- Completed the modernization and upgrade of video capabilities at WD.- Continued the modernization and upgrade of the range timing and sensor interface system at WD.- Continued the modernization and upgrade of the telemetry antenna systems at WD.- Continued the development of a Range Capabilities Master Plan (RCMP) at WD.- Continued the clean up of expended depleted uranium at WD.		23.476	20.596	18.239	0.000	18.239

UNCLASSIFIED

R-1 Line Item #142

Page 6 of 12

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support		R-1 ITEM NOMENCLATURE PE 0604759N: Major T&E Investment		PROJECT 2195: T & E Investment		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<ul style="list-style-type: none">- Continued the equipment procurement of aircraft machining and prototyping equipment and procure network equipment and computer aided software at AD.- Continued the modernization and upgrade of the Multiple Target Instrumented Radar (MIR) at AD.- Continued the modernization and upgrade of the airborne telemetry, optics, and flight termination capabilities for the range support aircraft at WD.- Continued the minor upgrade and modernization of test capabilities at AD and WD.- Initiated the modernization and upgrade of communication and fiber infrastructure at WD.- Initiated the development of a Range Capabilities Master Plan (RCMP) at AD.- Initiated the modernization of the Kineto Tracking Mounts (KTM) at WD.- Initiated and completed the development of a plan for an automated aircraft maintenance system at AD.- Initiated and completed T-2 support at AD. <p><i>FY 2010 Plans:</i></p> <ul style="list-style-type: none">- Continue all efforts of FY 2009, less those noted as completed above.- Complete the modernization and upgrade of the range timing and sensor interface system at WD.- Complete the modernization and upgrade of the telemetry antenna systems at WD.- Complete the development of a Range Capabilities Master Plan (RCMP) at AD and WD.- Complete the equipment procurement of aircraft machining and prototyping equipment and procure network equipment and computer aided software at AD.- Complete the modernization and upgrade of the Multiple Target Instrumented Radar (MIR) at AD.- Initiate the modernization and upgrade of crypto equipment at AD and WD.- Initiate the modernization and upgrade of communications and data fiber and equipment at locations around the bay at AD.- Initiate the modernization of optical and radar tracking equipment, telemetry systems and the Mobile Aerial Target Support System (MATSS) at PMRF.						

UNCLASSIFIED

R-1 Line Item #142

Page 7 of 12

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: - Continue all efforts of FY 2010, less those noted as complete above. - Complete the modernization and upgrade of communications and data fiber and equipment at locations around the bay at AD. - Initiate the development and installation of a remote telemetry system for San Nicolas Island at WD.						
TEST FACILITIES INVESTMENTS This effort funds the modernization and upgrades of existing capabilities and the development of new test capabilities required at the MRTFB test facilities at the Naval Air Warfare Center Aircraft Division (AD), Patuxent River, MD, and Naval Air Warfare Center Weapons Division (WD), Point Mugu, CA and China Lake, CA. FY 2009 Accomplishments: - Initiated the development of a simulation environment visualization and debriefing system and software at AD. - Initiated the development of high power Radio Frequency (RF) carts at AD. - Initiated the modernization and upgrade of the gas turbine engine rotor spin facility at AD. - Initiated the modernization and upgrade of the warhead insensitive munitions and safety test site at WD. - Continued the minor upgrade and modernization of test capabilities at AD and WD. - Continued the modernization and upgrade of aircraft and test instrumentation capability at AD. FY 2010 Plans: - Continue all efforts of FY 2009. - Complete the development of a simulation environment visualization and debriefing system and software at AD. - Complete the development of high power Radio Frequency (RF) carts at AD. - Complete the modernization and upgrade of the gas turbine engine rotor spin facility at AD.		6.646	14.073	2.959	0.000	2.959

UNCLASSIFIED

R-1 Line Item #142

Page 8 of 12

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support		R-1 ITEM NOMENCLATURE PE 0604759N: Major T&E Investment		PROJECT 2195: T & E Investment	
B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<ul style="list-style-type: none">- Complete the modernization and upgrade of aircraft and test instrumentation capability at AD.- Initiate and complete the modernization of laboratory test equipment in the Electromagnetic Interference Laboratory and Electromagnetic Environmental Effects facility at AD.- Initiate and complete the modernization of the large x-ray machine in the Non-Destructive Test and Evaluation facility at WD.- Initiate the development of a Common Data Link test capability at AD. <p><i>FY 2011 Base Plans:</i></p> <ul style="list-style-type: none">- Continue all efforts of FY 2010, less those noted as completed above.- Complete the modernization and upgrade of the warhead insensitive munitions and safety test site at WD.- Complete the development of a Common Data Link test capability at AD.					
DAWDF REALIGNMENT <i>FY 2009 Accomplishments:</i> - DAWDF Realignment	0.207	0.000	0.000	0.000	0.000
Accomplishments/Planned Programs Subtotals	41.393	44.658	37.522	0.000	37.522
C. Other Program Funding Summary (\$ in Millions)					
N/A					
D. Acquisition Strategy					
Not Applicable.					
E. Performance Metrics					
Successfully achieve Initial Operational Capability of 8-15 Improvement and Modernization projects per year and have 90% of test capabilities scheduled in support of Navy acquisition test programs within 180 days.					

UNCLASSIFIED

R-1 Line Item #142

Page 9 of 12

UNCLASSIFIED

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	9.774	6.971	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	30.763
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification Congressional Add.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010			
Congressional Add: Joint Mission Battle-Space to Support Net-Ready Key Performance Parameters <i>FY 2010 Plans:</i> Initiate prototype effort to develop an interactive joint mission battle-space to support test and evaluation of the net-ready key performance parameter.							0.000	1.992			
Congressional Add: NETWORK EXPANSION & INTEGRATION OF NAVY/NASA RDT&E <i>FY 2009 Accomplishments:</i> This is a continuing project that designs and develops (including environmental permits) fiber optic replacement of some of the existing microwave links between NASA instrumentation and the Atlantic Test Range.							4.787	0.000			
Congressional Add: Air Combat Environment Test and Evaluation Facilit							2.992	0.000			

UNCLASSIFIED

R-1 Line Item #142

Page 10 of 12

UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604759N: <i>Major T&E Investment</i>	PROJECT 9999: <i>Congressional Adds</i>
B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
<i>FY 2009 Accomplishments:</i> Funds provided for the upgrade of Air Combat Environment Test and Evaluation Facility. Upgrade WKS2000 workstation at Air Combat Environment Test and Evaluation Facility (ACETEF) to PC-based Linux OS and port existing software to current industry standards. Integrate waveform visualization components and audio components in to Electronic Warfare Environment (EWEnv) Graphical User Interface (GUI); develop a preliminary translation capability from Electronic Warfare Integrated Reprogramming (EWIR) to the EWEnv database format; install EWEnv in the Man Flight Simulator (MFS) lab and integrate with the F-18 simulator. Develop and integrate into MFS F-18 E/F simulation High Level Architecture (HLA) compatible ALR-67(v3) model; APG-73 and APG-79 Active Electronically Scanned Array (AESA) radar model with air-to-air (A/A) and air-to-ground (A/G) modes; ASQ-228(v2) Advanced Tactical Forward Looking Infra-Red (ATFLIR) capability with tracking hardware, avionics integration and atmospheric model.		
Congressional Add: Improved Interoperability R&D to Support NAVAIR an <i>FY 2009 Accomplishments:</i> Funds provided to upgrade the Ship Self Defense System (SSDS) and Cooperative Engagement Capability (CEC) Sensor Network at the Surface/Aviation Interoperability Laboratory (SAIL). <i>FY 2010 Plans:</i> This is a continuing project provided to upgrade the Ship Self Defense System (SSDS) and Cooperative Engagement Capability (CEC) Sensor Network at the Surface/Aviation Interoperability Laboratory (SAIL).	1.995	4.979
Congressional Adds Subtotals	9.774	6.971

UNCLASSIFIED

R-1 Line Item #142

Page 11 of 12

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
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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.		

UNCLASSIFIED

R-1 Line Item #142

Page 12 of 12