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**Department of Defense
Fiscal Year (FY) 2012 President's Budget**

February 2011



Navy

Justification Book Volume 4

Research, Development, Test & Evaluation, Navy

Budget Activity 6

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Navy • President's Budget FY 2012 • RDT&E Program

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Navy • President's Budget FY 2012 • RDT&E Program

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Department of the Navy
 FY 2012 President's Budget
 Exhibit R-1 FY 2012 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

24 Jan 2011

Summary Recap of Budget Activities -----	FY 2010 (Base & OCO)	FY 2011 Base Request with CR Adj	FY 2011 OCO Request with CR Adj	FY 2011 Total Request with CR Adj	FY 2011 Annual CR Base	FY 2011 Annual CR OCO	FY 2011 Annual CR Total
RDT&E Management Support	1,372,741	849,242	5,200	854,442	955,555	8,578	964,133
Total Research, Development, Test & Eval, Navy	1,372,741	849,242	5,200	854,442	955,555	8,578	964,133
Summary Recap of FYDP Programs -----							
Intelligence and Communications	2,454	1,859		1,859	2,092		2,092
Research and Development	1,365,628	843,123	5,200	848,323	948,670	8,578	957,248
Training Medical and Other	4,049	4,260		4,260	4,793		4,793
Administration and Associated Activities	610						
Total Research, Development, Test & Eval, Navy	1,372,741	849,242	5,200	854,442	955,555	8,578	964,133

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Department of the Navy
 FY 2012 President's Budget
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 (Dollars in Thousands)

24 Jan 2011

	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Summary Recap of Budget Activities -----			
RDT&E Management Support	859,423		859,423
Total Research, Development, Test & Eval, Navy	859,423		859,423
Summary Recap of FYDP Programs -----			
Intelligence and Communications	2,764		2,764
Research and Development	856,659		856,659
Training Medical and Other			
Administration and Associated Activities			
Total Research, Development, Test & Eval, Navy	859,423		859,423

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Department of the Navy
 FY 2012 President's Budget
 Exhibit R-1 FY 2012 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

24 Jan 2011

Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2010 (Base & OCO)	FY 2011 Base Request with CR Adj	FY 2011 OCO Request with CR Adj	FY 2011 Total Request with CR Adj	FY 2011 Annual CR Base	FY 2011 Annual CR OCO	FY 2011 Annual CR Total	Sec
142	0604256N	Threat Simulator Development	06	26,363	18,755		18,755	21,103		21,103	U
143	0604258N	Target Systems Development	06	72,110	66,066		66,066	74,337		74,337	U
144	0604759N	Major T&E Investment	06	51,628	37,522		37,522	42,219		42,219	U
145	0605126N	Joint Theater Air and Missile Defense Organization	06								U
146	0605152N	Studies and Analysis Support - Navy	06	11,879	8,149		8,149	9,169		9,169	U
147	0605154N	Center for Naval Analyses	06	45,712	49,165		49,165	55,320		55,320	U
148	0605502N	Small Business Innovative Research	06	414,266							U
149	0605804N	Technical Information Services	06	21,173	662		662	745		745	U
150	0605853N	Management, Technical & International Support	06	57,012	58,329		58,329	65,631		65,631	U
151	0605856N	Strategic Technical Support	06	3,570	3,451		3,451	3,883		3,883	U
152	0605861N	RDT&E Science and Technology Management	06	70,950	72,094		72,094	81,119		81,119	U
153	0605863N	RDT&E Ship and Aircraft Support	06	168,428	95,332		95,332	107,266		107,266	U
154	0605864N	Test and Evaluation Support	06	368,819	376,418		376,418	423,541		423,541	U
155	0605865N	Operational Test and Evaluation Capability	06	12,997	15,746		15,746	17,717		17,717	U
156	0605866N	Navy Space and Electronic Warfare (SEW) Support	06	2,506	4,013	5,200	9,213	4,515	8,578	13,093	U
157	0605867N	SEW Surveillance/Reconnaissance Support	06	19,338	19,700		19,700	22,166		22,166	U
158	0605873M	Marine Corps Program Wide Support	06	18,877	17,721		17,721	19,939		19,939	U
159	0305885N	Tactical Cryptologic Activities	06	2,454	1,859		1,859	2,092		2,092	U

R-1P: FY 2012 President's Budget (With FY 2011 CR Adjustments), as of January 24, 2011 at 11:20:29

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Department of the Navy
 FY 2012 President's Budget
 Exhibit R-1 FY 2012 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

24 Jan 2011

Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Se
142	0604256N	Threat Simulator Development	06	28,318		28,318	U
143	0604258N	Target Systems Development	06	44,700		44,700	U
144	0604759N	Major T&E Investment	06	37,957		37,957	U
145	0605126N	Joint Theater Air and Missile Defense Organization	06	2,970		2,970	U
146	0605152N	Studies and Analysis Support - Navy	06	23,454		23,454	U
147	0605154N	Center for Naval Analyses	06	47,127		47,127	U
148	0605502N	Small Business Innovative Research	06	10		10	U
149	0605804N	Technical Information Services	06	571		571	U
150	0605853N	Management, Technical & International Support	06	68,301		68,301	U
151	0605856N	Strategic Technical Support	06	3,277		3,277	U
152	0605861N	RDT&E Science and Technology Management	06	73,917		73,917	U
153	0605863N	RDT&E Ship and Aircraft Support	06	136,531		136,531	U
154	0605864N	Test and Evaluation Support	06	335,367		335,367	U
155	0605865N	Operational Test and Evaluation Capability	06	16,634		16,634	U
156	0605866N	Navy Space and Electronic Warfare (SEW) Support	06	4,228		4,228	U
157	0605867N	SEW Surveillance/Reconnaissance Support	06	7,642		7,642	U
158	0605873M	Marine Corps Program Wide Support	06	25,655		25,655	U
159	0305885N	Tactical Cryptologic Activities	06	2,764		2,764	U

R-1P: FY 2012 President's Budget (With FY 2011 CR Adjustments), as of January 24, 2011 at 11:20:29

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Department of the Navy
 FY 2012 President's Budget
 Exhibit R-1 FY 2012 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

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Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2010 (Base & OCO)	FY 2011 Base Request with CR Adj	FY 2011 OCO Request with CR Adj	FY 2011 Total Request with CR Adj	FY 2011 Annual CR Base	FY 2011 Annual CR OCO	FY 2011 Annual CR Total	S e c
160	0804758N	Service Support to JFCOM, JNTC	06	4,049	4,260		4,260	4,793		4,793	U
161	0909980N	Judgment Fund Reimbursement	06	76							U
162	0909999N	Financing for Cancelled Account Adjustments	06	534							U
		RDT&E Management Support		1,372,741	849,242	5,200	854,442	955,555	8,578	964,133	
Total Research, Development, Test & Eval, Navy				1,372,741	849,242	5,200	854,442	955,555	8,578	964,133	

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Department of the Navy
 FY 2012 President's Budget
 Exhibit R-1 FY 2012 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

24 Jan 2011

Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Element Number	Program Item	Act	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Se c
160	0804758N	Service Support to JFCOM, JNTC	06				U
161	0909980N	Judgment Fund Reimbursement	06				U
162	0909999N	Financing for Cancelled Account Adjustments	06				U
		RDT&E Management Support		859,423		859,423	
Total Research, Development, Test & Eval, Navy				859,423		859,423	

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Navy • President's Budget FY 2012 • RDT&E Program

Program Element Table of Contents (by Budget Activity then Line Item Number)

*Budget Activity 06: RDT&E Management Support
Appropriation 1319: Research, Development, Test & Evaluation, Navy*

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143	06	0604258N	Target Systems Development.....	Volume 4 - 13
144	06	0604759N	Major T&E Investment.....	Volume 4 - 23
145	06	0605126N	(U)Joint Theater Air and Missile Defense Org.....	Volume 4 - 31
146	06	0605152N	Studies & Analysis Supt - Navy.....	Volume 4 - 35
147	06	0605154N	Center For Naval Analyses.....	Volume 4 - 45
148	06	0605502N	Small Business Innovative Research.....	Volume 4 - 53
149	06	0605804N	Technical Information Services.....	Volume 4 - 91
150	06	0605853N	Management, Technical & Intl Supt.....	Volume 4 - 99
151	06	0605856N	Strategic Technical Support.....	Volume 4 - 135
152	06	0605861N	RDT&E Science & Tech Mgmt.....	Volume 4 - 141
153	06	0605863N	RDT&E Ship & Aircraft Support.....	Volume 4 - 149
154	06	0605864N	Test & Evaluation Support.....	Volume 4 - 159
155	06	0605865N	Operational Test & Eval Capability.....	Volume 4 - 183
156	06	0605866N	Navy Space & Electr Warfare Supt.....	Volume 4 - 189

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***Budget Activity 06: RDT&E Management Support
Appropriation 1319: Research, Development, Test & Evaluation, Navy***

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Line Item	Budget Activity	Program Element Number	Program Element Title	Page
157	06	0605867N	Space & Elec War Surv/Recon.....	Volume 4 - 197
158	06	0605873M	Marine Corps Program Wide Supt.....	Volume 4 - 201
159	06	0305885N	Tactical Cryptologic Activities.....	Volume 4 - 219
160	06	0804758N	Service Support To JFCOM, JNTC.....	Volume 4 - 223
161	06	0909980N	Judgment Fund Reimbursement.....	Volume 4 - 229
162	06	0909999N	Cancelled Account Adjustments.....	Volume 4 - 231

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Cancelled Account Adjustments	0909999N	162	06.....Volume 4 - 231	
Center For Naval Analyses	0605154N	147	06.....Volume 4 - 45	
Judgment Fund Reimbursement	0909980N	161	06.....Volume 4 - 229	
Major T&E Investment	0604759N	144	06.....Volume 4 - 23	
Management, Technical & Intl Supt	0605853N	150	06.....Volume 4 - 99	
Marine Corps Program Wide Supt	0605873M	158	06.....Volume 4 - 201	
Navy Space & Electr Warfare Supt	0605866N	156	06.....Volume 4 - 189	
Operational Test & Eval Capability	0605865N	155	06.....Volume 4 - 183	
RDT&E Science & Tech Mgmt	0605861N	152	06.....Volume 4 - 141	
RDT&E Ship & Aircraft Support	0605863N	153	06.....Volume 4 - 149	
Service Support To JFCOM, JNTC	0804758N	160	06.....Volume 4 - 223	
Small Business Innovative Research	0605502N	148	06.....Volume 4 - 53	
Space & Elec War Surv/Recon	0605867N	157	06.....Volume 4 - 197	
Strategic Technical Support	0605856N	151	06.....Volume 4 - 135	
Studies & Analysis Supt - Navy	0605152N	146	06.....Volume 4 - 35	
Tactical Cryptologic Activities	0305885N	159	06.....Volume 4 - 219	

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Program Element Title	Program Element Number	Line Item	Budget Activity	Page
Target Systems Development	0604258N	143	06.....Volume 4 -	13
Technical Information Services	0605804N	149	06.....Volume 4 -	91
Test & Evaluation Support	0605864N	154	06.....Volume 4 -	159
Threat Simulator Development	0604256N	142	06.....	Volume 4 - 1

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0604256N: <i>Threat Simulator Development</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	26.363	18.755	28.318	-	28.318	20.928	21.165	21.460	21.727	Continuing	Continuing
0602: <i>Eletronics W/F Env Simulation (ECHO)</i>	12.238	7.955	15.108	-	15.108	7.386	7.396	7.390	7.533	Continuing	Continuing
0672: <i>Effect Nav E/W (ENEWS)</i>	12.532	10.800	13.210	-	13.210	13.542	13.769	14.070	14.194	Continuing	Continuing
9999: <i>Congressional Adds</i>	1.593	-	-	-	-	-	-	-	-	0.000	1.593

A. Mission Description and Budget Item Justification

This is a continuing program that consolidates the design, fabrication and integration of Naval Electronic Warfare (EW) threat simulators for increased managerial emphasis and coordination. These simulator development efforts provide realistic Developmental and Operational Test and Evaluation (DT&E/OT&E) environments to test EW systems and defensive tactics. These projects develop threat Anti-Air and Anti-Ship weapon system simulators in accordance with the Services' requirements.

The 0602 Project, Electronic Warfare Environment Simulation, directly supports the Test and Evaluation resource requirements for all Naval Air EW development programs to include multi-spectral situational awareness and countermeasures. Programs in development and future programs include: Advanced Anti-Radiation Guided Missile (AARGM), ALR-67 (v) 2 and (v) 3, Integrated Defensive Electronic Countermeasures (IDECM) Suite ALQ-214, AAR-47 (v) 2 and the AAR-47 (v) 3, AVR-2, Advanced 6" Expendable, Advanced Strategic Tactical Expendable (ASTE), ALQ-144A, Joint and Allied Threat Awareness System (JATAS), Strike and Assault Directed Infrared Countermeasures (DIRCM), Joint Strike Fighter, EA-18G, LR700, Low Band Transmitter, P-8A, and the Next Generation Jammer (NGJ).

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	27.021	18.755	20.448	-	20.448
Current President's Budget	26.363	18.755	28.318	-	28.318
Total Adjustments	-0.658	-	7.870	-	7.870
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.343	-			
• Program Adjustments	-	-	8.499	-	8.499
• Section 219 Reprogramming	-0.315	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.629	-	-0.629

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>
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Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 9999: *Congressional Adds*

Congressional Add: *Navy Advanced Threat Simulator*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

FY 2010	FY 2011
1.593	-
1.593	-
1.593	-

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>				PROJECT 0602: <i>Eletronics W/F Env Simulation (ECHO)</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0602: <i>Eletronics W/F Env Simulation (ECHO)</i>	12.238	7.955	15.108	-	15.108	7.386	7.396	7.390	7.533	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The objective of this project is development of necessary simulation facilities and approaches to allow determination of the effectiveness of Electronic Warfare (EW) in real world engagement situations and to support the introduction of modern, effective systems into Naval Aviation. The heavy use of test resources by all Services demonstrates the importance of these assets. The Navy has been very successful in executing all of its major programs, and to date has had no major technical problems.

The Electronic Warfare Environment Simulation project is unique because it is the only program within the Department of Defense which develops and provides Naval anti-air warfare threat assets for Test and Evaluation (T&E).

This project directly supports the T&E resource requirements for all Naval Air EW development programs, to include multi-spectral situational awareness and countermeasures. Programs in development and future programs include: Advanced Anti-Radiation Guided Missile ALR-67 (v) 2 and (v) 3, Integrated Defensive Electronic Countermeasures Suite ALQ-214, AAR-47 (v) 2 and the AAR-47 (v) 3, AVR-2, Advanced 6" Expendable, Advanced Strategic Tactical Expendable, ALQ-144A, Joint and Allied Threat Awareness System, Strike and Assault Directed Infrared Countermeasures, Joint Strike Fighter, EA-18G, LR700, Low Band Transmitter, P-8A, and the Next Generation Jammer.

This project provides for the development of an Integrated Air Defense T&E capability to be fielded at each of the three sites comprising the Navy's Tri-Center complex: Naval Air Warfare Center Weapons Division, China Lake and Point Mugu in CA, and Naval Air Warfare Center Aircraft Division, Patuxent River, MD.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: ELECTRO-OPTICAL/INFRA-RED (EO/IR) THREAT CAPABILITIES	0.380	0.550	-
Articles:	0	0	
Description: Provide the test community with the modern threat systems necessary for T&E of airborne Electro-Optical/Infra-Red (EO/IR) passive alert systems and airborne EO/IR active response systems.			
Funding increases from FY 2010 to FY 2011 and decreases from FY 2011 to FY 2012 based on the priority of the test requirement. Funding increases in FY 2011 due to the effort required to complete the Advanced Imaging Infra-Red (IIR) Seeker project.			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>	PROJECT 0602: <i>Eletronics W/F Env Simulation (ECHO)</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p><i>FY 2010 Accomplishments:</i></p> <ul style="list-style-type: none"> - Completed the development of the Reactive Plume Simulator (RPS). - Continue the development of IIR Seeker. <p><i>FY 2011 Plans:</i></p> <ul style="list-style-type: none"> - Complete the development of IIR Seeker. 				
<p>Title: RADIO FREQUENCY (RF) THREAT CAPABILITIES</p> <p>Description: Provide the test community with the modern threat systems necessary for T&E of airborne Radio Frequency (RF) alert, Situation Awareness, targeting systems and airborne RF response systems.</p> <p>Funding decreases from FY 2010 to FY 2011 due to project completions and phasing of continuing project to align with program schedules. These systems are required to test the Joint Strike Fighter, EA-18G, Next Generation Jammer, and other Navy platforms. Funding increases from FY 2011 to FY 2012 due to the need to address additional double digit threat systems at the Electronic Combat Range (ECR) by initiating the development of the long range threat systems simulator at ECR.</p> <p><i>FY 2010 Accomplishments:</i></p> <ul style="list-style-type: none"> - Completed the upgrade of the existing open air range threat simulator to provide a new generation, high fidelity double digit threat I-34 (Advanced Threat Simulator). - Completed the development of a millimeter wave stimulation capability. - Completed the procurement and integration of an advanced threat system through Foreign Materials Acquisition channels. - Completed the upgrade of the I-32 open air simulator by replacing the transmitter. - Completed intel updates to missile, radar, and gun simulations. - Initiated the development of the long range threat systems in laboratories. - Initiated the upgrade to the J-32B Advanced Threat System (ATS) at ECR. - Initiated the development of an advanced Early Warning and Acquisition (EW/ACQ) radar hybrid laboratory simulator. <p><i>FY 2011 Plans:</i></p> <ul style="list-style-type: none"> - Continue the development of the long range threat systems in laboratories. - Continue the upgrade to the J-32B ATS at ECR. - Continue the development of an advanced EW/ACQ radar hybrid laboratory simulator. <p><i>FY 2012 Plans:</i></p> <ul style="list-style-type: none"> - Complete the upgrade of an ATS at ECR. 		<p>10.364</p> <p align="right">Articles:</p> <p align="right">0</p>	<p>6.426</p> <p align="right">0</p>	<p>14.129</p> <p align="right">0</p>

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>	PROJECT 0602: <i>Eletronics W/F Env Simulation (ECHO)</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> - Continue the development of the long range threat systems in laboratories. - Continue the development of an advanced EW/ACQ radar hybrid laboratory simulator. - Initiate the upgrade of advanced manpad system simulators. - Initiate the development of the long range threat systems at ECR. - Initiate the update to existing laboratory simulators of foreign radars. - Initiate and complete the development of a Digital Radio Frequency Memory jammer simulator. 				
<p>Title: REQUIREMENTS AND VALIDATION</p> <p align="right">Articles:</p> <p>Description: Validate and track intel updates of the threat systems necessary for the operation and continuous improvement of Navy laboratories and ranges which provide engineering support, testing and analysis to the developers, integrators, testers and users of systems and technologies that counter or penetrate air defenses.</p> <p>Funding decreases from FY 2010 to FY 2011 based on the priority of the test requirements. Requirements assimilation and project management activities will be reduced to correspond with fewer executing projects.</p> <p>FY 2010 Accomplishments:</p> <ul style="list-style-type: none"> - Continued to provide program management, systems engineering, and requirements identification for the development of simulators and foreign material acquisition. - Continued to validate simulators and stimulators at the Navy tri-lab centers. <p>FY 2011 Plans:</p> <ul style="list-style-type: none"> - Continue to provide program management, systems engineering, and requirements identification for the development of simulators and foreign material acquisition. - Continue to validate simulators and stimulators at the Navy tri-lab centers. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Continue to provide program management, systems engineering, and requirements identification for the development of simulators and foreign material acquisition. - Continue to validate simulators and stimulators at the Navy tri-lab centers. 		1.494 0	0.979 0	0.979 0
Accomplishments/Planned Programs Subtotals		12.238	7.955	15.108

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>	PROJECT 0602: <i>Eletronics W/F Env Simulation (ECHO)</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not Applicable.

E. Performance Metrics

Successfully achieve Initial Operational Capability of Navy Threat Simulation projects within 60 days of approved schedule and have test capabilities scheduled in support of Navy test programs within 180 days.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>	PROJECT 0672: <i>Effect Nav E/W (ENEWS)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0672: <i>Effect Nav E/W (ENEWS)</i>	12.532	10.800	13.210	-	13.210	13.542	13.769	14.070	14.194	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The objective of the Effectiveness of Navy Electronic Warfare (EW) Systems (ENEWS) Project is the development and application of necessary simulation assets to determine the effectiveness of EW for Navy ships in simulated real-world engagement situations. The project primarily supports the introduction of modern, effective shipboard and offboard EW systems, and tactics for the Surface Navy. The heavy use of ENEWS resources by Naval Sea Systems Command, Operational Test and Evaluation (OT&E) Force, Special Operations, and other EW Research, Development, Test and Evaluation (T&E) agencies speaks to the overall importance of this project. The project provides support for EW system design Engineering Test (ET), Development Test (DT), Operational Test (OT), and the development of utilization tactics. Its quick reaction capabilities have had great impact on crisis situations such as the Lebanon and Libyan crises, Iran Harpoon threat, Persian Gulf crisis, and Operation Desert Shield/Storm. Simulation Display is another ENEWS modeling tool that was developed to support T&E. The display has been adopted by most Department of Defense (DoD) T&E and training ranges to provide visualization of T&E and training scenarios. The primary threat to surface ships is Anti-Ship Capable Missile systems. The ENEWS Project is unique in that it is the only project within DoD dedicated to developing and providing realistic Anti-Ship Capable Missile assets to test and evaluate the effectiveness of shipboard EW systems and tactics against these type threats. The ENEWS Project is a critical part of the Office of the Secretary of Defense Test Resource Master Plan. This plan employs many of the ENEWS assets for planning, analysis, testing, and verification of shipboard and offboard EW systems techniques and tactics. As part of its normal activities, ENEWS provides Development Test and Evaluation (DT&E), OT&E, and Follow-on Operational Test and Evaluation (FOT&E) support to the surface Navy for all ship classes. DT, OT and FOT&E support includes AN/SLQ-32 Surface Electronic Warfare Improvement Program (SEWIP), R17.OX NULKA, Rapid Anti-ship Integrated Defense System, all MK245 Giant tests, advanced InfraRed (IR) decoys, decoy placement, ship IR signature and radar cross section measurement of DDG-51, LPD-17, DD-21 and PC class ships, High Power Microwave program, and other ship self-defense initiatives, including T&E of Future Naval Capability process. In addition, ENEWS assets are regularly employed to test the effectiveness of North Atlantic Treaty Organization ships' EW systems in joint allied exercises. ENEWS assets also support Joint EW exercises that are conducted with Rim of the Pacific (RIMPAC) nations.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: CLASSIFIED PROGRAM	7.937	5.701	8.418
Articles:	0	0	0
Description: Details about this program are classified.			
Details about this program and any changes are classified.			
FY 2010 Accomplishments:			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>	PROJECT 0672: <i>Effect Nav E/W (ENEWS)</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>- Details are of a higher classification.</p> <p>FY 2011 Plans:</p> <p>- Details are of a higher classification.</p> <p>FY 2012 Plans:</p> <p>- Details are of a higher classification.</p>				
<p>Title: HARDWARE SIMULATION SYSTEMS</p> <p>Description: Maintain and perform Hardware and Software Upgrades to the inventory of ENEWS flyable and shore based Anti-Ship Capable Missile (ASCM) Electro-Optic/Infrared, Visible and Radio Frequency (RF) Simulators. Perform characterization of IR and RF simulators as part of periodic evaluation of simulation performance and collect performance data for comparison with previously recorded data. Development and maintenance of all simulator control panels.</p> <p>FY 2010 Accomplishments:</p> <ul style="list-style-type: none"> - Continued annual maintenance on ENEWS simulators to support flight/shore based tests. - Initiated intelligence upgrades to MEIR 2-2, MEIR 3, SUMMIT simulators and the MIKE 2 & 3, and VICTOR 1 Standard Instrumentation Pods (SIPs). - Initiated software intelligence upgrades to VICTOR 1 SIP and SUMMIT simulators. - Initiated and completed characterization of the TANGO simulator modified for the NRL Learjet Electronics Pod (LEP). - Initiated the transition of the TANGO simulator into the NRL LEP. - Initiated and completed the INDIA I control panel. <p>FY 2011 Plans:</p> <ul style="list-style-type: none"> - Continue annual maintenance on ENEWS simulators to support flight/shore based tests. - Continue intelligence upgrades to SUMMIT simulators and VICTOR 1 SIP. - Continue software intelligence upgrades to VICTOR 1 SIP and SUMMIT simulators. - Complete intelligence upgrades to MEIR 2-2, MEIR 3 simulators the MIKE 2 & 3 SIPs. - Complete transition of the TANGO simulator into the NRL LEP. - Initiate software intelligence upgrades to the towed FOXTROT 3 simulator. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Continue annual maintenance on ENEWS simulators to support flight/shore based tests. - Continue software intelligence upgrades to the towed FOXTROT 3 simulator. - Complete intelligence upgrades to the VICTOR 1 SIP and SUMMIT simulators. 		<p>1.636</p> <p>Articles: 0</p>	<p>1.738</p> <p>0</p>	<p>1.695</p> <p>0</p>

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>	PROJECT 0672: <i>Effect Nav E/W (ENEWS)</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> - Complete software intelligence upgrades to the VICTOR 1 SIP and SUMMIT simulators. - Initiate characterization of NOVEMBER Va/Vb simulators. - Initiate and complete characterization of GAMMA simulator. 				
<p>Title: SIMULATION VALIDATION AND REQUIREMENTS</p> <p>Articles:</p>		0.946 0	0.985 0	0.987 0
<p>Description: Provides for the validation of hardware simulators and digital models. Develops reports that contain detailed descriptions and parametric data of the threat simulators or digital models and compares the simulator's parametric data to the actual threats parametric data. Provide technical management functions in support of the ENEWS project; engineering and technical support requirements for the overall efforts of ASCM simulator and digital model development to meet DT/OT testing requirements, development of detailed test resource requirements and provides an interface between N-912, N-433, Office of Naval Research and other ENEWS oversight activities.</p> <p>FY 2010 Accomplishments:</p> <ul style="list-style-type: none"> - Continued management of the Simulator Validation Working Group SVWG. - Continued INDIA I, PAPA and KILO hardware validation reports. - Initiated and completed MEIR 3 hardware validation report. - Initiated and completed update of FY 2010 Program Management Plan. - Initiated and completed FY 2010 quarterly reports, earned value management analysis, progress tracking and analysis. <p>FY 2011 Plans:</p> <ul style="list-style-type: none"> - Continue all efforts of FY 2010, less those noted as completed above. - Continued management of the Simulator Validation Working Group SVWG. - Complete INDIA I, PAPA, and KILO hardware validation reports. - Initiate QUESTION and UNIFORM hardware validation reports. - Initiate and complete update of FY 2011 Program Management Plan. - Initiate and complete FY 2011 quarterly reports, earned value management analysis, progress tracking and analysis. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Continued management of the Simulator Validation Working Group SVWG. - Continue QUESTION and UNIFORM hardware validation reports. - Initiate FOXTROT 3 TOWSIM, OMEGA and GAMMA hardware validation reports - Initiate and complete update of the FY 2012 Program Management Plan. 				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>	PROJECT 0672: <i>Effect Nav E/W (ENEWS)</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
- Initiate and complete FY 2012 quarterly reports, earned value management analysis, progress tracking and analysis.				
Title: SUPPORT AND COMPUTERS SIMULATION SYSTEMS		2.013	2.376	2.110
		0	0	0
Articles:				
Description: Perform maintenance and intelligence upgrades to EO/IR, Digital, and RF Laboratory Simulation testing facilities and flight support equipment based on existing and emerging complex threat systems. Development of T&E scenarios and environmental modeling to support electronic support (ES) and electronic attack (EA) testing; modify ASCM Digital Models based on the latest intelligence data obtained from threat databases.				
FY 2010 Accomplishments:				
- Continued maintenance and upgrades to shore-based test facilities and mobile test vans as required to conduct tests in support of SEWIP, NULKA and multi function EW programs.				
- Continued transitioning NRL Codes 5750 and 5770's environmental, threat and platform simulations to the subversion software configuration management program. Upgraded subversion software library as new releases became available.				
- Continued to develop new digital models of Anti-ship Cruise Missile (ASCM) threats as they became available.				
- Continued upgrades and maintenance of flight support systems as necessary to support the IR/RF ENEWS simulators.				
- Continued improvements and intelligence upgrades to ALPHA I, INDIA I, II, III, LIMA, NOVEMBER III, QUEBEC, TANGO, and TANGO II. In all, a total of 9 digital models.				
- Initiated improvements and intelligence upgrades to the COHERENT and foreign anti-ship missile (FASM) digital models.				
- Initiated intelligence updates and simulation user friendly enhancements for the Long Range High Altitude (LRHA) digital model.				
FY 2011 Plans:				
- Continue all efforts of FY2010.				
- Initiate improvements and intelligence upgrades to the Millimeter Wave (mmW) digital models.				
FY 2012 Plans:				
- Continue all efforts of FY2011, less those noted as complete below.				
- Complete improvements and intelligence upgrades to the COHERENT and FASM digital models.				
- Complete the simulation user friendly enhancements for the LRHA digital model.				
- Initiate simulation user friendly enhancements for the TANGO and TANGO II digital models.				
Accomplishments/Planned Programs Subtotals		12.532	10.800	13.210

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>	PROJECT 0672: <i>Effect Nav E/W (ENEWS)</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Performance metrics are discussed within each project (R2a).

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604256N: <i>Threat Simulator Development</i>	PROJECT 9999: <i>Congressional Adds</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	1.593	-	-	-	-	-	-	-	-	0.000	1.593
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 Programs (\$ in Millions)

	FY 2010	FY 2011
<i>Congressional Add:</i> Navy Advanced Threat Simulator	1.593	-
<i>FY 2010 Accomplishments:</i> This effort supported the development of a high priority threat simulator.		
Congressional Adds Subtotals	1.593	-

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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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE								
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>			PE 0604258N: <i>Target Systems Development</i>								
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	72.110	66.066	44.700	-	44.700	41.374	37.117	38.049	38.623	Continuing	Continuing
0609: <i>Aerial Target System Dev</i>	53.628	49.456	33.252	-	33.252	18.364	12.834	13.139	13.342	Continuing	Continuing
0610: <i>Wpn Sys T&E Trng Dev/Proc</i>	17.312	15.190	10.067	-	10.067	21.609	22.850	23.447	23.791	Continuing	Continuing
0612: <i>Surface Targets Development</i>	1.170	1.420	1.381	-	1.381	1.401	1.433	1.463	1.490	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element funds the development and procurement of aerial targets, sea surface targets, control systems, and associated Target Augmentation and Auxiliary Systems needed to represent real world threat systems. These capabilities are key enablers to the successful execution of the developmental and operational test and evaluation of naval combat weapons systems and to the satisfaction of advanced fleet training requirements.

B. Program Change Summary (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	79.273	66.066	52.874	-	52.874
Current President's Budget	72.110	66.066	44.700	-	44.700
Total Adjustments	-7.163	-	-8.174	-	-8.174
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-4.500	-			
• SBIR/STTR Transfer	-2.292	-			
• Program Adjustments	-	-	-7.583	-	-7.583
• Section 219 Reprogramming	-0.369	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.591	-	-0.591
• Congressional General Reductions Adjustments	-0.002	-	-	-	-

Change Summary Explanation

Technical: Not applicable.
Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604258N: <i>Target Systems Development</i>	PROJECT 0609: <i>Aerial Target System Dev</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0609: <i>Aerial Target System Dev</i>	53.628	49.456	33.252	-	33.252	18.364	12.834	13.139	13.342	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Aerial target systems, Target Control (TC), and associated Target Augmentation and Auxiliary Systems (TA/AS) are developed to support test & evaluation and advanced fleet training for Joint Strike and Littoral Warfare Systems required to defend fleet surface and air units in a hostile environment.

This project includes

- Subsonic Targets. Subsonic Aerial Target (SSAT) development. The SSAT primarily represents subsonic anti-ship cruise missile threats in direct support of the test & evaluation (T&E) of major combat weapons systems programs and fleet training.
- Supersonic Targets. Supersonic Sea Skimming Target (SSST), Multi-Stage Supersonic Target (MSST), and supersonic high-diver capability development. The family of supersonic target capabilities represents supersonic anti-ship cruise missile threats in direct support of Developmental Test and Evaluation (DT&E), Operational Test and Evaluation (OT&E) and Live Fire Test and Evaluation of major combat weapons systems programs in development.
- TC and TA/AS development. TC provides command and control of targets to enable the execution of threat representative mission profiles. TA/AS enables each target to be uniquely configured for specific mission profiles. TA/AS-configured targets are used for radar acquisition test, electronic countermeasures (jamming) evaluation, infrared measurement and testing, radar cross section evaluation, decoy effectiveness testing, maneuver analysis, electronic warfare evaluation, warhead effectiveness testing and evaluation of fleet tactics. TA/AS scoring capabilities include both surface and airborne scalar and vector scoring systems.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Supersonic Targets	39.864	29.207	16.387
Articles:	0	0	0
Description: MSST emulates a two-stage anti-ship cruise missile. The MSST will have a bus stage that will tumble and fall into the sea, and a sprint stage that continues flight to impact. The fielded system will provide threat representation in support of DT&E and OT&E and will identify deficiencies in shipboard air defense systems. Funding will continue GQM-163 SSST upgrades/ evolutionary development to keep pace with evolving threat characteristics. Efforts include continuing to establish operational capability at Pacific Missile Range Facility, developing performance envelope characteristics to include flight termination performance, and continuing development of high-diver capability.			
FY 2010 Accomplishments: Held the program's Systems Functional Review. Held the program's Systems Software Review. Held the program's Preliminary Design Review (PDR). Participated in the Technology Assessment Review. Held quarterly Program Management Reviews (PMRs) and quarterly Schedule Risk Assessments (SRAs).			
FY 2011 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604258N: <i>Target Systems Development</i>	PROJECT 0609: <i>Aerial Target System Dev</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Test the Engineering Evaluation Unit #2 and hold the program's Critical Design Review. Begin T&E training, conduct the program's Integrated Readiness Review, conduct the program's Test Readiness Review, hold quarterly PMRs, and hold quarterly SRAs.</p> <p>FY 2012 Plans: Conduct Flight Readiness Review and conduct Engineering Development Model Test Flights One through Three. Conduct Integrated Logistics Assessment and conduct rocket motor qualifications. Conduct quarterly PMRs and hold quarterly SRAs. Develop Low Rate Initial Production Request For Proposals (RFP) package.</p>				
<p>Title: Subsonic Targets</p> <p align="right">Articles:</p> <p>Description: Continue SSAT development to keep pace with evolving threat requirements. Incorporate configuration control requirements into RFP and the System Engineering Plan. Conduct source selection for the Engineering and Manufacturing Development (EMD) phase. Manage the execution of the EMD phase and conduct and support reviews and development decisions.</p> <p>FY 2010 Accomplishments: Released RFP, conducted source selection. Award steps not completed in FY10 due to additional time required to perform the technical evaluation.</p> <p>FY 2011 Plans: Will award development contract. Conduct EMD. Conduct PDR. Commence effort on Developmental Test I.</p> <p>FY 2012 Plans: Conduct EMD.</p>		7.407 0	13.300 0	11.316 0
<p>Title: TC and TA/AS</p> <p align="right">Articles:</p> <p>Description: Continue to support TC and TA/AS capable of supporting T&E and fleet training activities. TC involves the improved command and control systems capable of controlling multiple targets simultaneously while delivering adequate fidelity of T&E telemetry data. Augmentation and Auxiliary systems must be capable of augmenting targets in support of radar acquisition test, electronic countermeasures (jamming) evaluation, infrared measurement/test, radar cross section evaluation, decoy effectiveness, maneuver analysis, electronic warfare, warhead effectiveness and evaluation of fleet tactics, readiness and training.</p> <p>FY 2010 Accomplishments:</p>		6.357 0	6.949 0	5.549 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604258N: <i>Target Systems Development</i>	PROJECT 0609: <i>Aerial Target System Dev</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Awarded Filthy Buzzard Advanced Digital Radio Frequency Modulator (DRFM) by using a Phase III Small Business Innovative Research contract for first article development quantities. Continued Measure and Set System development and subscale aerial target integration. Initiated Millimeter Wave (MMW) Offboard System - development of two prototypes planned. FY 2011 Plans: Filthy Badger DRFM - incremental upgrade planned. MMW Threat Emitter - development of two prototypes planned. MMW Antennas - development of two prototypes planned for each of the six different types required. Ongoing intelligence gathering and exploitation will be accomplished. FY 2012 Plans: Filthy Badger DRFM - continue incremental upgrade efforts. E-F Band Radio Frequency Deck - development of two prototypes planned. Dual Band System - development of two prototypes planned. Continue Millimeter Wave Threat Emitter development. Ongoing intelligence gathering and exploitation will be accomplished.			
Accomplishments/Planned Programs Subtotals	53.628	49.456	33.252

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• WPN 22800: <i>Aerial Targets</i>	47.549	43.988	46.359	0.000	46.359	85.296	70.544	71.924	73.117	Continuing	Continuing
• WPN 612020: <i>Spares and Repair Parts</i>	0.820	1.422	1.072	0.000	1.072	1.560	1.485	1.560	1.583	Continuing	Continuing

D. Acquisition Strategy
N/A

E. Performance Metrics				
EFFORT	PERFORMANCE REQUIREMENT	OBJECTIVE	THRESHOLD	TEST RESULT
SSAT	Maximum Speed at Low Altitude	0.95 M @ 6.6 ft @	0.90 M @10.0 ft @	TBD
EMD	[Mach (M) at feet (ft) above wave	Sea State 5	Sea State 3	

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0604258N: <i>Target Systems Development</i>	PROJECT 0609: <i>Aerial Target System Dev</i>
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program	crest at WMO Sea State conditions]				
MSST EMD	Speed of separated sprint vehicle	Mach 2.2 to Mach 3.5	Threshold=Objective	TBD	
TC-TA/AS TTSP	Microwave power module - Second Source	100 Watts output power	Threshold=Objective	TBD	

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604258N: <i>Target Systems Development</i>	PROJECT 0610: <i>Wpn Sys T&E Trng Dev/Proc</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0610: <i>Wpn Sys T&E Trng Dev/Proc</i>	17.312	15.190	10.067	-	10.067	21.609	22.850	23.447	23.791	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 provides for the development and procurement of aerial targets and associated systems used exclusively for test and evaluation of naval weapons systems which closely represent current and projected threats to fleet units in the Joint Strike and the Littoral Warfare environments. These representations must include characteristics related to size, performance envelope, and electromagnetic and infrared signatures. As threats change, changes must be made to keep the targets threat representative in response to changes in the test requirements of the developers of naval weapons systems.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
<p>Title: Air Superiority Target (AST)</p> <p align="right">Articles:</p> <p>Description: The AST is being developed as the follow-on to the current Full Scale Aerial Target (FSAT). The AST will be a supersonic, high altitude, remote-controlled aerial target. This target will have full command and control capability through normal flight maneuvers.</p> <p>FY 2010 Accomplishments: Engineering and Manufacturing (EMD) contract has been awarded and development begun.</p> <p>FY 2011 Plans: Continue conduct of EMD.</p> <p>FY 2012 Plans: Continue conduct of EMD.</p>	<p>6.500</p> <p>0</p>	<p>4.000</p> <p>0</p>	<p>7.442</p> <p>0</p>
<p>Title: QF-4 FSAT</p> <p align="right">Articles:</p> <p>Description: The FSAT is a supersonic, high altitude, remote-controlled aerial target. This target has full command and control capability through normal flight maneuvers. The continued program will include engineering and logistics support for the FSAT, including Aviation Depot Level Repairables, procurement of kit material and conversion of F-4 aircraft into FSAT targets (QF-4). QF-4 procurements support aircraft and weapons systems testing and development, including that of the Joint Strike Fighter, AIM-9X Sidewinder missile, Advanced Medium-Range Air-to-Air Missile, and Standard Missile 6.</p> <p>FY 2010 Accomplishments:</p>	<p>9.772</p> <p>0</p>	<p>9.894</p> <p>0</p>	<p>2.625</p> <p>0</p>

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604258N: <i>Target Systems Development</i>	PROJECT 0610: <i>Wpn Sys T&E Trng Dev/Proc</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<p>FY 2010 QF-4 Target procurement has been reduced to a quantity of two because of significant unit cost increases primarily in the contract for conversion to robotic operation. Project Order was issued for organic effort, commercial contract award made and effort begun.</p> <p>FY 2011 Plans: Plan to maintain and operate the fielded inventory earmarked for the Navy. Plan to procure two QF-4 aircraft targets versus previously-planned due to unit cost increases.</p> <p>FY 2012 Plans: Plan to maintain and operate the fielded inventory earmarked for the Navy.</p>			
<p>Title: Target Augmentation and Auxilary Systems (TA/AS) and Scoring Systems</p> <p align="right">Articles:</p> <p>Description: Continue to support Target Control (TC) and TA/AS capable of supporting T&E activites. TC involves the improved command and control systems capable of controlling multiple targets simultaneously while delivering adequate fidelity of T&E telemetry data. TA/AS must be capable of augmenting targets in support of radar acquisition testing, infrared measurement and test, decoy effectiveness testing, maneuver analysis, warhead effectiveness testing, and evaluation of fleet tactics. Scoring systems include both surface and airborne scalar and vector scoring.</p> <p>FY 2010 Accomplishments: Planned to complete the design/development, First Article Testing, and Qualification Testing for the telemetry antenna on the Multi-Stage Supersonic Target (MSST).</p> <p>FY 2011 Plans: Continue pursuing alternative test set repair sources.</p>	1.040 0	1.296 0	-
Accomplishments/Planned Programs Subtotals	17.312	15.190	10.067

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

EFFORT	PERFORMANCE REQUIREMENT	OBJECTIVE	THRESHOLD	TEST RESULT
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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>		R-1 ITEM NOMENCLATURE PE 0604258N: <i>Target Systems Development</i>		PROJECT 0610: <i>Wpn Sys T&E Trng Dev/Proc</i>
QF-4 Full Scale Target	Flight Termination Sys.- Reliable & effective auto & manual failsafe fast destruct, orbit destruct, & destruct receiver capability	Achieve requirement	Threshold=objective	Satisfactory
AST - Air Superiority Target (QF-16)	Capable of carrying, operating and monitoring required payloads	Achieve requirement	Threshold=objective	TBD

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604258N: <i>Target Systems Development</i>	PROJECT 0612: <i>Surface Targets Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0612: <i>Surface Targets Development</i>	1.170	1.420	1.381	-	1.381	1.401	1.433	1.463	1.490	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 seaborne targets and their related target augmentation systems in support of air-to-surface and surface-to-surface weapons test and evaluation and fleet training.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Surface Targets Development	1.170	1.420	1.381
Articles:	0	0	0
FY 2010 Accomplishments:			
Created, tuned, and tested navigation algorithms and modes for SeaCAN targets, including waypoint modes and formation control.			
Monitored developments in Command & Control (C2)			
Reviewed capabilities of inventory with regard to threat, weapons test schedules and Fleet training requirements.			
Re-baselined Radar Cross Section (RCS) for High Speed Maneuverable Seaborne Target and Ship Deployable Seaborne Target (SDST) with augmentation			
Developed packages to tailor RCS			
Developed a realistic human target, including InfraRed (IR) signature and vulnerability			
Performed signature characterization of all powered targets, including IR and Electro-Optical regimes			
Investigated building tow targets from polyethylene			
Developed deployable tow for SDST			
Developed steerable tow as force multiplier			
FY 2011 Plans:			
Monitor developments in C2			
Portable C2 Unit (PCCU) software baseline update and testing			
Review capabilities of inventory with regard to threat, weapons test schedule and fleet training requirements			
Rebaseline RCS for various powered and towed targets with augmentation			
Develop packages to tailor RCS			
Realistic human target, including IR signature and vulnerability testing			
Small baseline HARPOON target development and testing			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0604258N: <i>Target Systems Development</i>	PROJECT 0612: <i>Surface Targets Development</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Real-time target sea state measurement and operator feedback SeaCAN printed circuit boards obsolete replacement Polyethylene tow target testing Deployable tow target testing and offset tow target testing			
<i>FY 2012 Plans:</i> Monitor developments in C2 PCCU software baseline update and testing Review capabilities of inventory with regard to threat, weapons test schedules and fleet training requirements Re-baseline RCS for various powered and towed targets with augmentation Develop packages to tailor RCS Develop signature management techniques to address evolving threats			
Accomplishments/Planned Programs Subtotals	1.170	1.420	1.381

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• OPN/5455: ASW Range SE	7.234	7.121	7.842	0.000	7.842	9.038	7.994	7.129	7.275	0.000	53.633

D. Acquisition Strategy
N/A

E. Performance Metrics
Review capability of inventory with respect to threat, weapons test schedules and fleet training requirements. OBJECTIVE: Available inventory of seaborne targets to meet fleet requirements.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE								
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>			PE 0604759N: <i>Major T&E Investment</i>								
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	51.628	37.522	37.957	-	37.957	34.675	35.592	36.591	37.266	Continuing	Continuing
2195: <i>T & E Investment</i>	44.657	37.522	37.957	-	37.957	34.675	35.592	36.591	37.266	Continuing	Continuing
9999: <i>Congressional Adds</i>	6.971	-	-	-	-	-	-	-	-	0.000	6.971

A. Mission Description and Budget Item Justification

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, Andros Island, Bahamas; the Nanoose and Dabob ranges of the Naval Undersea Warfare Center Division 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, 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 located at the Naval Air Warfare Center Aircraft Division, Patuxent River, MD and the test capabilities located at the Pacific Missile Range Facility, Kauai, HI.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	51.629	37.522	39.441	-	39.441
Current President's Budget	51.628	37.522	37.957	-	37.957
Total Adjustments	-0.001	-	-1.484	-	-1.484
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	-0.058	-	-0.058
• Rate/Misc Adjustments	-	-	-1.426	-	-1.426
• Congressional General Reductions Adjustments	-0.001	-	-	-	-

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 9999: *Congressional Adds*

FY 2010	FY 2011

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

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>
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Congressional Add Details (\$ in Millions, and Includes General Reductions)

Congressional Add: *Joint Mission Battle-Space to Support Net-Ready Key Performance Parameters*

Congressional Add: *Improved Interoperability R&D to Support NAVAIR an*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

	FY 2010	FY 2011
Congressional Add: <i>Joint Mission Battle-Space to Support Net-Ready Key Performance Parameters</i>	1.992	-
Congressional Add: <i>Improved Interoperability R&D to Support NAVAIR an</i>	4.979	-
Congressional Add Subtotals for Project: 9999	6.971	-
Congressional Add Totals for all Projects	6.971	-

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2195: <i>T & E Investment</i>	44.657	37.522	37.957	-	37.957	34.675	35.592	36.591	37.266	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 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, Andros Island, Bahamas; the Nanoose and Dabob ranges of the Naval Undersea Warfare Center Division 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, 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 located at the Naval Air Warfare Center Aircraft Division, Patuxent River, MD and the test capabilities located at the Pacific Missile Range Facility, Kauai, HI.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: UNDERSEA RANGE INVESTMENTS	12.750	16.324	10.894
Articles:	0	0	0
<p>Description: This effort funds the modernization, upgrades, and new test capabilities required at the Navy's Major Range Test Facility Base undersea ranges, to include, Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center, Andros Island, Bahamas; the Nanoose and Dabob ranges of the Naval Undersea Warfare Center Division Keyport, Keyport, WA.</p> <p>FY 2010 Accomplishments:</p> <ul style="list-style-type: none"> - 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 the Atlantic Undersea Test and Evaluation Center (AUTEC) & Nanoose and Dabob. - Completed the development of new range post-processing software and modernized hardware at AUTEC. - Completed the modernization and upgrade of voice and data communications equipment at AUTEC. - Initiated the refurbishment and service life extension of a range vessel at AUTEC. This effort includes conducting a survey of the vessel in FY10 in preparation for a dry dock period in FY11 and FY12. 			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
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>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> - Initiated the modernization and upgrade of the electronic warfare simulator capability at AUTEK. - Initiated the modernization and upgrade of crypto equipment at AUTEK. - Initiated the modernization and upgrade of the optical tracking and surveillance system at Nanoose and Dabob. <p>FY 2011 Plans:</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 AUTEK. This effort includes costs incurred during the dry dock period with the majority of that cost in FY 2011. - Complete the modernization and upgrade of the aircraft sonobuoy simulation and stimulation capability at AUTEK. - Complete the modernization and upgrade of the electronic warfare 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. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Continue all efforts of FY 2011, less those noted as complete above. - Complete the refurbishment and service life extension of a range vessel at AUTEK. - Complete the development and installation of broadband capable bottom mounted targets at Nanoose and Dabob. - Complete the modernization and upgrade of the optical tracking and surveillance system at Nanoose and Dabob. - Complete the acquisition of a new range recovery system at Nanoose and Dabob. - Initiate the upgrade to the Test and Evaluation target at Nanoose and Dabob. 				
Title: OPEN AIR RANGE INVESTMENTS		19.007	18.239	22.463
		Articles: 0	0	0
<p>Description: 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, Patuxent River, MD, Naval Air Warfare Center Weapons Division, Point Mugu, CA and China Lake, CA and Pacific Missile Range Facility (PMRF), Kauai, HI.</p> <p>FY 2010 Accomplishments:</p> <ul style="list-style-type: none"> - Continued the modernization and upgrade of the range timing and sensor interface system at the Naval Air Warfare Center Weapons Division (WD). - Continued the clean up of expended depleted uranium at WD. 				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
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>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> - Continued the modernization and upgrade of communication and fiber infrastructure at WD. - Continued the modernization of the Kineto Tracking Mounts at WD. - Continued the modernization and upgrade of the Multiple Target Instrumented Radar at the Naval Air Warfare Center Aircraft Division (AD). - Continued the development of an automated aircraft maintenance tracking system at AD. - Continued the minor upgrade and modernization of test capabilities at AD and WD. - Completed the modernization and upgrade of the mobile radio communications system at WD. - Completed the modernization and upgrade of the telemetry antenna systems at WD. - Completed the development of a Range Capabilities Master Plan at AD and WD. - Completed the equipment procurement of aircraft machining and prototyping equipment and procure network equipment and computer aided software at AD. - Initiated the modernization and upgrade of crypto equipment at AD and WD. - Initiated the modernization and upgrade of communications and data fiber and equipment at locations around the bay at AD. - Initiated the modernization of optical and radar tracking equipment and telemetry systems at the PMRF. - Initiated and complete an environmental assessment and cultural resource surveys at WD. - Initiated and complete an automated test tracking system at AD. <p>FY 2011 Plans:</p> <ul style="list-style-type: none"> - 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. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Continue all efforts of FY 2011, less those noted as complete above. - Initiate cultural resource surveys at WD. - Initiate aircraft prototyping secure network installation at AD. - Initiate radar service life extension project at AD. - Initiate telemetry re-radiation pod modernization at AD. - Initiate video instrumentation modernization at AD. - Initiate the Mobile Aerial Target Support System modernization at PMRF. 				
Title: TEST FACILITIES INVESTMENTS		12.900	2.959	4.600
Articles:		0	0	0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 2195: <i>T & E Investment</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<p>Description: 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, Patuxent River, MD, and Naval Air Warfare Center Weapons Division, Point Mugu, CA and China Lake, CA.</p> <p>FY 2010 Accomplishments:</p> <ul style="list-style-type: none"> - Continued the modernization and upgrade of the gas turbine engine rotor spin facility at the Naval Air Warfare Center Aircraft Division (AD). - Continued the minor upgrade and modernization of test capabilities at AD and Naval Air Warfare Center Weapons Division (WD). - Continued the modernization and upgrade of the warhead insensitive munitions and safety test site at WD. - Completed the development of a simulation environment visualization and debriefing system and software at AD. - Completed the development of high power Radio Frequency carts at AD. - Completed the modernization and upgrade of aircraft and test instrumentation capability at AD. - Initiated and complete the modernization of laboratory test equipment in the Electromagnetic Interference Laboratory and Electromagnetic Environmental Effects facility at AD. - Initiated and complete the modernization of the large x-ray machine in the Non-Destructive Test and Evaluation facility at WD. - Initiated the development of a Common Data Link test capability at AD. <p>FY 2011 Plans:</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. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Continue all efforts of FY 2011, less those noted as completed above. - Initiate the helicopter drive system test facility sustainment program at AD. - Initiate the bio-fuel blending and evaluation facility development at AD. - Initiate and complete the drop tower facility upgrade at WD. - Initiate and complete the propulsion control room upgrade at WD. - Initiate and complete upgrade of the CT-1 facility at WD. 			
Accomplishments/Planned Programs Subtotals	44.657	37.522	37.957

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not Applicable.

E. Performance Metrics

Successfully achieve Initial Operational Capability (IOC) of 8-15 Improvement and Modernization (I&M) projects per year and have 90% of test capabilities scheduled in support of Navy acquisition test programs within 180 days.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	6.971	-	-	-	-	-	-	-	-	0.000	6.971
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 Programs (\$ in Millions)

	FY 2010	FY 2011
Congressional Add: Joint Mission Battle-Space to Support Net-Ready Key Performance Parameters	1.992	-
FY 2010 Accomplishments: Initiate prototype effort to develop an interactive joint mission battle-space to support test and evaluation of the net-ready key performance parameter.		
Congressional Add: Improved Interoperability R&D to Support NAVAIR an	4.979	-
FY 2010 Accomplishments: 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).		
Congressional Adds Subtotals	6.971	-

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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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0605126N: <i>(U)Joint Theater Air and Missile Defense Org</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	-	-	2.970	-	2.970	6.873	1.573	0.574	-	0.000	11.990
3307: <i>Maritime Integrated Air and Missile Defense (IAMD) Processing Sys (MIPS)</i>	-	-	2.970	-	2.970	6.873	1.573	0.574	-	0.000	11.990

Note

This is a new start program in FY 2012.

A. Mission Description and Budget Item Justification

Maritime Integrated Air and Missile Defense (IAMD) Processing System (MIPS) is an automated air and missile defense planning tool that supports the Joint Force Maritime Component Commander operational level of war air defense planning by automatically and optimally allocating and stationing ships in support of Ballistic Missile Defense (BMD) or Anti-Air Warfare (AAW). MIPS contains United States Army Patriot and Terminal High Altitude Air Defense models to ensure synergistic allocation and positioning of maritime units in relation to army units, providing optimized mutual defense of selected defended assets, against selected BMD and AAW threats. MIPS works in concert with Joint Force Air Component Commander using the Command & Control Battle Management & Communications (C2BMC) to ensure collaborative and synergistic planning across the operational level.

The MIPS models require inclusion of modeling for Bottom contours, Long Range Surveillance & Track (LRS&T), Launch on Tactical Digital Information Link (TADIL), Cued Engagement and Cooperative Engagement Capability (CEC) stationing to improve model performance and meet the requirements for optimized defense.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	2.970	-	2.970
Total Adjustments	-	-	2.970	-	2.970
• Congressional General Reductions					
• Congressional Directed Reductions					
• Congressional Rescissions	-	-			
• Congressional Adds					
• Congressional Directed Transfers					
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	3.000	-	3.000
• Rate/Misc Adjustments	-	-	-0.030	-	-0.030

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605126N: <i>(U)Joint Theater Air and Missile Defense Org</i>
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Change Summary Explanation

Technical: Not applicable. No previous RDT&E budget submission for MIPS. This is the first submission under this PE.

Schedule: Not applicable. No previous RDT&E budget submission for MIPS. This is the first submission under this PE.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605126N: <i>(U)Joint Theater Air and Missile Defense Org</i>	PROJECT 3307: <i>Maritime Integrated Air and Missile Defense (IAMD) Processing Sys (MIPS)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3307: <i>Maritime Integrated Air and Missile Defense (IAMD) Processing Sys (MIPS)</i>	-	-	2.970	-	2.970	6.873	1.573	0.574	-	0.000	11.990
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

This is a new start in FY 2012.

A. Mission Description and Budget Item Justification

Maritime Integrated Air and Missile Defense (IAMD) Processing System (MIPS) is an automated air and missile defense planning tool that supports the Joint Force Maritime Component Commander operational level of war air defense planning by automatically and optimally allocating and stationing ships in support of Ballistic Missile Defense (BMD) or Anti-Air Warfare (AAW). MIPS contains United States Army Patriot and Terminal High Altitude Air Defense models to ensure synergistic allocation and positioning of maritime units in relation to army units, providing optimized mutual defense of selected defended assets, against selected BMD and AAW threats. MIPS works in concert with Joint Force Air Component Commander Planning System (C2BMC) to ensure collaborative and synergistic planning across the operational level.

The MIPS models require inclusion of modeling for Bottom contours, Long Range Surveillance & Track (LRS&T), Launch on Tactical Digital Information Link (TADIL), Cued Engagement and Cooperative Engagement Capability (CEC) stationing to improve model performance and meet the requirements for optimized defense.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Systems Engineering	-	-	2.970
Articles:			0
FY 2012 Plans: Complete programmatic documentation to successfully complete Milestone B for the program. Provide system update that includes incorporation of the model updates for Bottom contours, LRS&T, Launch on TADIL, Cued Engagement and CEC stationing.			
Accomplishments/Planned Programs Subtotals	-	-	2.970

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605126N: <i>(U)Joint Theater Air and Missile Defense Org</i>	PROJECT 3307: <i>Maritime Integrated Air and Missile Defense (IAMD) Processing Sys (MIPS)</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OPN/5265: <i>MIPS</i>	0.000	0.000	4.823	0.000	4.823	0.000	0.000	0.000	0.000	0.000	4.823

D. Acquisition Strategy

Paperwork in process requesting ACAT 3 designation.

Contracts:

MIPS RDT&E FY12-FY15

E. Performance Metrics

- FY12:
- Successfully complete Milestone B decision.
 - Successfully complete contract award.
 - Conduct quarterly working groups to identify and manage model update priorities and resolve programmatic/technical issues.
 - Conduct Technical Interchange Meetings as needed to explore and resolve emergent design and requirement issues.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0605152N: <i>Studies & Analysis Supt - Navy</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	11.879	8.149	23.454	-	23.454	23.582	24.238	26.670	27.013	Continuing	Continuing
0133: <i>National Acad Sci/Stud Board</i>	1.630	1.201	1.546	-	1.546	1.539	1.446	1.496	1.505	Continuing	Continuing
2092.: <i>Naval Warfare Studies</i>	9.496	6.309	14.173	-	14.173	16.007	17.574	19.760	19.887	Continuing	Continuing
2097: <i>Manpower Personnel & Training</i>	0.753	0.639	0.825	-	0.825	0.801	0.755	0.761	0.774	Continuing	Continuing
3310: <i>Naval Aviation Developmental Planning</i>	-	-	6.910	-	6.910	5.235	4.463	4.653	4.847	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program provides analytical support to the Secretary of the Navy and the Chief of Naval Operations as a basis for major policy, planning and acquisition program execution decisions. It supports research and development strategy development and planning. It supports studies in the areas of manpower, personnel, training, and aviation. It also develops analytical tools for evaluating effectiveness of U.S. weapons against potential foreign threat ships and submarines.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	12.321	8.149	11.425	-	11.425
Current President's Budget	11.879	8.149	23.454	-	23.454
Total Adjustments	-0.442	-	12.029	-	12.029
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.861	-			
• SBIR/STTR Transfer	-0.170	-			
• Program Adjustments	0.001	-	12.301	-	12.301
• Section 219 Reprogramming	-0.118	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.272	-	-0.272
• Congressional General Reductions	-0.016	-	-	-	-
Adjustments					
• Congressional Add Adjustments	-1.000	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*
BA 6: *RDT&E Management Support*

R-1 ITEM NOMENCLATURE

PE 0605152N: *Studies & Analysis Supt - Navy*

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605152N: <i>Studies & Analysis Supt - Navy</i>	PROJECT 0133: <i>National Acad Sci/Stud Board</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0133: <i>National Acad Sci/Stud Board</i>	1.630	1.201	1.546	-	1.546	1.539	1.446	1.496	1.505	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 supports the core program for the Naval Studies Board. As agreed upon between the Chief of Naval Operations (CNO) and the President of the National Academy of Sciences and with appropriate attention to the influence of the domestic economy, national objectives, social imperatives and anticipated military requirements, the Naval Studies Board will conduct and report upon surveys, investigations, and analyses in the field of scientific research and development applicable to the operation and function of the Navy. Reports consist of a briefing to the Assistant Secretary of the Navy (Research Development and Acquisition) and the CNO and staff, and written technical reports.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: National Acad Sci/Stud Board	1.630	1.201	1.546
Articles:	0	0	0
FY 2010 Accomplishments:			
- Continued research efforts and investigations in areas of interest to the Navy.			
- Initiated new study on "U.S. Naval Forces' Capabilities for Responding to Small Vessel Threats."			
- Initiated new study on "Improving the Decision Making Abilities of Small Unit Leaders in support of the Marine Corps."			
- Completed studies initiated in FY09.			
FY 2011 Plans:			
- Continue research efforts and investigations in areas of interest to the Navy.			
- Complete studies initiated in FY10.			
- Initiate new studies to be selected by the CNO during FY11.			
FY 2012 Plans:			
- Continue research efforts and investigations in areas of interest to the Navy.			
- Complete studies initiated in FY11.			
- Initiate new studies to be selected by the CNO during FY12.			
Accomplishments/Planned Programs Subtotals	1.630	1.201	1.546

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605152N: <i>Studies & Analysis Supt - Navy</i>	PROJECT 0133: <i>National Acad Sci/Stud Board</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Conduct and report upon surveys, investigations, and analyses in the field of scientific research and development applicable to the operations and function of the Navy in a timely manner.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605152N: <i>Studies & Analysis Supt - Navy</i>	PROJECT 2092.: <i>Naval Warfare Studies</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2092.: <i>Naval Warfare Studies</i>	9.496	6.309	14.173	-	14.173	16.007	17.574	19.760	19.887	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 supports detailed mission, capability, and technical analysis of future naval warfighting requirements. This work provides the analytical basis for integration and prioritization of overall military capability requirements and acquisition programs in support of executing the Naval Capability Development Process and development/delivery of Mission Capability Packages, Naval Capability Packages, and Integrated Strategic Capability Plans for Chief of Naval Operations. This project supports detailed mission, capability, and technical analysis of future naval warfighting requirements. This work provides the analytical basis for integration and prioritization of overall military capability requirements and acquisition programs in support of executing the Naval Capability Development Process and development/delivery of Mission Capability Packages, Naval Capability Packages, and Integrated Strategic Capability Plans for Chief of Naval Operations.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Naval Warfighting Assessments	7.031	5.325	6.539
Articles:	0	0	0
FY 2010 Accomplishments:			
Coordinated and prioritized all Office of the Chief of Naval Operations (OPNAV) analysis efforts. Supported future Naval warfighting capability assessments, including cost-to-capability assessments, and mission-level modeling and simulation. Analyzed integration across all warfare areas, and assessments of legacy and future Programs-of-Record contribution to future warfighting requirements. Integrated Naval warfighting requirements into the Joint Capability Integration and Development System process. Provided the analytical underpinning for investment recommendations to Chief of Naval Operations (CNO). Served as the analytics basis to integrate and prioritize overall warfighting capability requirements and acquisition programs to support the Naval Capability Development Process. Supported the development of Mission Capability Packages, Naval Capability Packages, Integrated Strategic Capability Plans, and capabilities-based and balanced Integrated Sponsors' Program Proposals. Supported the Navy in its effort as lead for analytic engagement with Office of the Secretary of Defense and Joint Staff, including coordination of OPNAV participation in Joint Analytical Agenda. Assessed magnitude gaps and analyzed programmatic solutions. Reviewed approximately 40 tasks for FY10 Integrated Analytic Agenda in support of POM-12 technical executability, deconflicted internally, and eliminated redundancy with work previously done. Prioritized FY10 tasks to address issues of greatest concern to leadership and with greatest impact on programs/capabilities. Tasks provided for studies include 37 tasks for decision superiority, 21 tasks for global maritime security, 13 tasks for sea control, and 5 tasks for power projection. Produced and delivered FY10 Analytical Agenda briefings and assessments for CNO within the overall Navy program development processes and delivered timely results on urgent operational and/or Program Objective Memorandum issues.			
FY 2011 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605152N: <i>Studies & Analysis Supt - Navy</i>	PROJECT 2092.: <i>Naval Warfare Studies</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Continue FY10 plan. FY 2012 Plans: Continue FY11 plan.				
Title: Portfolio Management Decision Support System Description: Portfolio Management Decision Support System: An analytic portfolio management methodology to aid Navy leadership with investment programming decision support. FY 2010 Accomplishments: Provided an assessment process that fosters informed, understandable, repeatable investment decisions with consistent, pedigreed, and retrievable information. Assessed programs of record and their proposed modifications (legacy and future) on their relative contribution to future warfighting requirements. FY 2011 Plans: Continue FY10 plan. FY 2012 Plans: Continue FY11 plan.		Articles: 2.465 0	0.984 0	1.634 0
Title: CONFORM FY 2012 Plans: Conduct focused pre-Milestone A technical studies in support of emerging or planned capabilities. Study outputs will include initial system and technology costing and performance parameterization for comparative assessment against capability directives and synthesis to quantify overall (fleet) capabilities. These products, in the form of expressions of cost versus capability, will serve as the basis of requirements and Joint Capability Integration and Development System analysis, define the trade space for analysis of alternatives efforts, and underpin discussion of force architecture/structure during Quadrennial Defense Review, long-range shipbuilding strategy builds, and Joint Requirements Oversight Council reviews.		Articles: -	-	6.000 0
Accomplishments/Planned Programs Subtotals		9.496	6.309	14.173

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605152N: <i>Studies & Analysis Supt - Navy</i>	PROJECT 2092.: <i>Naval Warfare Studies</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.
Not applicable

E. Performance Metrics

Naval Warfighting Assessment - Review 40 tasks for Integrated Analytic Agenda in support of technical executability, deconflict internally, and eliminate redundancy with work previously done. Complete 37 tasks for decision superiority, 21 tasks for global maritime security, 13 tasks for sea control, and 5 tasks for power projection. Produce and deliver Analytical Agenda briefings and assessments.

Portfolio Management Decision Support System (PMDSS) is an analytic Portfolio Management Methodology used to aid Navy leadership with both investment and divestment programming decisions. This methodology provides an assessment process that fosters informed, understandable, repeatable investment decisions with consistent, pedigreed, and retrievable information. The focus of this effort is to refine the system to identify programs as potential candidates for divestment. It provides leadership and resource sponsors with a starting point for their offset decision process as well as an issue ranking capability. PMDSS will include linkage of programs to N3/N5 strategic imperatives, programs mapped to warfare areas, program interdependencies annotated, and balance factors that can be adjusted to reflect Navy Leadership Priorities. The effort expands on PMDSS by capturing and mapping issues/funding adjustments, and providing a system capable of identifying fiscal interdependencies and consideration to risk in order to increase accuracy in calculating programmatic risk.

CONFORM - Complete one technical study annually in support of emerging or planned capabilities.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605152N: <i>Studies & Analysis Supt - Navy</i>	PROJECT 2097: <i>Manpower Personnel & Training</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2097: <i>Manpower Personnel & Training</i>	0.753	0.639	0.825	-	0.825	0.801	0.755	0.761	0.774	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Chief of Naval Personnel has a continuing need for studies and analysis of Manpower and Personnel (M&P) policies and programs and critical M&P issues that have Navy-wide implications. This project provides an essential management tool to: (a) assess the effectiveness of existing M&P policies and programs; (b) identify needs for new policies and programs; (c) determine the required manpower and training mix relative to changing demographic, societal and legislative/regulatory actions, and to evolving strategic and geopolitical factors; (d) study the impact of M&P programs on Navy accession, attrition, retention, and performance; and, to (e) develop, validate and/or refine a broad range of M&P forecasting models. The program permits Navy to more effectively utilize Research and Development expertise to respond to emergent M&P issues on a continuing basis. This program is funded under RDT&E operational systems development because it encompasses engineering and development of new end-items prior to production approval decision.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Manpower Personnel & Training	0.753	0.639	0.825
Articles:	6	7	9
FY 2010 Accomplishments:			
<ul style="list-style-type: none"> - Assessed/started Econometric Modeling System - Assessed use of prediction markets to support MPTE forecasting - Assessed Selected Re-enlisted Bonus (SRB) Policies - Evaluated and assessed marketing strategies for the All Volunteer Force (AVF) military - Assessed use of social networks and recruiting success - Assessed deployment intensity with respect to impacts/relationship to depression, PTSD and substance abuse in Active Duty Navy 2001-2006 			
FY 2011 Plans:			
<ul style="list-style-type: none"> - Continue assessing Econometric Modeling System and updating elasticities - Assess and update elasticities used in the Recruiting PRO Model - Continue assessing SRB Policies - Assess Special and Incentive Pay policies - Assess and evaluate retention, accession and training trade-offs 			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605152N: <i>Studies & Analysis Supt - Navy</i>	PROJECT 2097: <i>Manpower Personnel & Training</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
- Assess economic factors and relationships to MPTE business lines ISO forecasting and responses				
FY 2012 Plans: Continue FY 11 plan - Assess factors, thresholds and mitigation strategies to avoid a Hollow Force				
Accomplishments/Planned Programs Subtotals		0.753	0.639	0.825
C. Other Program Funding Summary (\$ in Millions) N/A				
D. Acquisition Strategy Not Applicable.				
E. Performance Metrics This PE provides funding to support continuing need for studies and analysis of issues critical to decisions required by the Chief of Naval Personnel and his staff regarding manpower, personnel, training and education policies and programs that have far-reaching implications to service members and the Navy budget. This PE supports research of both Naval Postgraduate School faculty and students and in FY-10 will begin the formulation of focused economic research, to include behavioral economics. This focus will provide continuing analysis and research to facilitate the data gathering and synthesis to provide consistent and timely update to economic indicators to use in the numerous models that support management decisions within the MPTE arena that have significant impact on the efficient use of the nearly \$27B Manpower & Personnel, Navy budget TOA. The economic research will consolidate the data necessary to perform elasticity estimations and maintain this data for subsequent estimations. To gather the data necessary to perform such estimations, would conservatively cost more than \$300K on each such occasion. The MPTE enterprise uses dozens of models, most of which require elasticity updates. Consolidating the data repository to support this analysis will result in a cost avoidance of more than \$1M and this does not include any of the actual model revisions.				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605152N: <i>Studies & Analysis Supt - Navy</i>	PROJECT 3310: <i>Naval Aviation Developmental Planning</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3310: <i>Naval Aviation Developmental Planning</i>	-	-	6.910	-	6.910	5.235	4.463	4.653	4.847	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Funding supports Naval aviation pre-Milestone B developmental activities to include the conduct and integration of systems engineering activities. This project unit provides information, automated tools, and decision aids necessary to perform acquisition planning in support of warfighter capability requirements. This project unit also supports research, development, and analysis efforts to include various studies, joint requirements analysis and cost analysis requirements in support of systems engineering activities, analysis-of-alternatives, and development of the 30-Year Aviation Plan (Congressionally mandated product). Due to high turnover and the end of service life of several Naval aircraft, DOD 5000 series mandates studies to identify capabilities lost and means to replace the capability. This project unit allows Naval aviation the means to properly identify capability gaps and potential solutions required to maintain maximum warfighting capability with minimal breaks in service and reduced and fiscal technical risk.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Naval Aviation Developmental Planning	-	-	6.910
Articles:			0
FY 2012 Plans: Conduct various studies for F/A-18, C-2 replacement solution, Jet Trainer replacement, Aggressor Squadron follow-on, and MH-53 replacement.			
Accomplishments/Planned Programs Subtotals	-	-	6.910

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Produce and deliver 30-Year Aviation Plan (Congressionally mandated product). Studies performed will be used to identify known warfighter capability gaps and support acquisition planning requirements associated with potential solutions. Studies provide coherent and integrated cost and capability data to support long-term planning for Naval Aviation consistent with DOD 5000 series instructions.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0605154N: <i>Center For Naval Analyses</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	45.712	49.165	47.127	-	47.127	49.364	49.988	51.463	51.587	Continuing	Continuing
0000: <i>UNDIST</i>	-	-	-	-	-	0.455	0.227	0.227	0.227	Continuing	Continuing
0031: <i>MCOAG</i>	7.168	7.742	7.847	-	7.847	8.073	8.241	8.411	8.549	Continuing	Continuing
0148: <i>Center For Naval Analyses (CNA)</i>	38.544	41.423	39.280	-	39.280	40.836	41.520	42.825	42.811	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Center for Naval Analyses (CNA) is the Department of the Navy's (DoN) only Federally Funded Research and Development Center (FFRDC). CNA provides independent, objective, and expert analyses based on its unique access to sensitive data and hands-on exposure to fleet operations gained through its world-wide field program. CNA's research program is centrally funded by this program element and is primarily concentrated along one Marine Corps category and thirteen Navy categories of study called product areas. These product areas are structured to enhance CNA's focus of research and analysis upon the major present and future needs and issues of the Navy and the Marine Corps. Because of rapid advances in technology, changes in the fleet, the increasing complexity of weapon systems, and reductions in manpower, force structure, budgets, the current security environment, and Department of Defense (DoD) transformation, the Navy and Marine Corps have a greater need for analyses that are sophisticated, relevant, and timely. CNA is highly qualified to meet that need.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	44.399	49.165	49.761	-	49.761
Current President's Budget	45.712	49.165	47.127	-	47.127
Total Adjustments	1.313	-	-2.634	-	-2.634
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.012	-			
• SBIR/STTR Transfer	-1.151	-			
• Program Adjustments	-	-	-2.522	-	-2.522
• Rate/Misc Adjustments	-	-	-0.112	-	-0.112
• Congressional General Reductions Adjustments	2.452	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*
BA 6: *RDT&E Management Support*

R-1 ITEM NOMENCLATURE

PE 0605154N: *Center For Naval Analyses*

Change Summary Explanation

Technical: N/A

Schedule: N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605154N: <i>Center For Naval Analyses</i>	PROJECT 0000: <i>UNDIST</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0000: <i>UNDIST</i>	-	-	-	-	-	0.455	0.227	0.227	0.227	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Funding budgeted in this project supports the same efforts as Project 0148.

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

N/A

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Issue 50435 POM12 endgame offset

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605154N: <i>Center For Naval Analyses</i>	PROJECT 0031: <i>MCOAG</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0031: <i>MCOAG</i>	7.168	7.742	7.847	-	7.847	8.073	8.241	8.411	8.549	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 supports the Marine Corps portion of the DoN CNA Research Program, and is managed as an element of the Marine Corps Studies System. This program provides the Marine Corps with independent and objective research and analysis of specific issues/topics appropriately performed by a FFRDC. As a result of the findings and recommendations of the Fiscal Year 1997 Defense Science Board, the Marine Corps refocused the type of support CNA provides. The CNA maintains a varied number of field representatives for the Operational Forces Commanders and eight (8) program areas for CNA to establish and maintain. The program areas are linked to the Marine Corps Advocacy (prepotency), which are: (1) Policy and Operations; (2) Systems and Tactics; (3) Research, Development and Acquisition; (4) Infrastructure and Readiness; (5) Manpower, Medical and Training; (6) Resources, Planning and Assessments; (7) Capabilities, Force Structure and Systems and (8) Intelligence, Surveillance and Reconnaissance. Scientific Analyst support provides six scientific analysts for the following six focus areas: Deputy Commandant (DC), Plans, Policies and Operations; DC Aviation; DC Installation and Logistics; DC Programs and Resources; DC Manpower Reserve Affairs; and Director, Manpower Plans (MP) - Manpower and Reserve Affairs (M&RA). The program continues analytical support for field exercises, Ad Hoc and Quick Response study requirements.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: MARINE CORPS OPERATIONS AND ANALYSIS GROUP	7.168	7.742	7.847
Articles:	0	0	0
FY 2010 Accomplishments:			
<ul style="list-style-type: none"> - Continued the following efforts from the FY09 Marine Corps Studies System Master Plan (MCSSMP): Setting and Building a Balanced Force; Marine Air Ground Task Force (MAGTF) Combat Airspace Management and Training; Ground Force Training Utilizing M&S; Amphibious Warfare Capability; MCTAG Development Analysis; Combat Airspace and Integration in Support of the MAGTF; Operationalizing Measures of Time to Train. - Initiated high priority study and analysis projects approved in FY10 MCSSMP. - Provided formal study and analysis support to the operating forces and headquarters elements included in the annual MCSSMP. - Provided eleven scientific analysts for direct analytical support to Marine Corps Headquarters staff elements: ACMC; DCMC Plans, Policies, and Operations; DCMC Installations and Logistics; DCMC Manpower and Reserve Affairs (x2); DCMC Aviation; and DCMC Programs and Resources, CD&I, TECOM, MARFORRES, AND RA. - Provided seven Field Representatives for direct analytical support to the Commander Marine Forces Pacific (COMMARFORPAC), Commander Marine Forces Atlantic (COMMARFORLANT), Commanding General I Marine Expeditionary Force (CG I MEF), Commanding General II Marine Corps Expeditionary Force (CG II MEF), Commanding General III Marine Expeditionary Force (CG III MEF), and Commanding General, Marine Air Weapons Training Squadron (MAWTS). 			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605154N: <i>Center For Naval Analyses</i>	PROJECT 0031: <i>MCOAG</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<p>- Provided analysis support to operating forces exercises, ad hoc support for immediate analytical requirements, and other support functions which include: general concept development, quick response studies, CNA self-initiated analysis efforts, administrative support, liaison, travel, and contract award fee.</p> <p>FY 2011 Plans:</p> <ul style="list-style-type: none"> - Continue all efforts of FY10. - Initiate high priority study and analysis projects approved in FY11 MCSSMP. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Continue all efforts of FY11. - Initiate high priority study and analysis projects approved in FY12 MCSSMP. 			
Accomplishments/Planned Programs Subtotals	7.168	7.742	7.847

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

The Marine Corps' portion of the CNA program is executed via the Marine Corps Studies System (MCSS) Annual Plan which is reviewed and updated on a quarterly basis. The MCSS maintains a comprehensive listing of all CNA studies performed for the Marine Corps. The MCSS ensures there are no duplicate analytical efforts within the Marine Corps. Additionally, the Operations Analysis Division of Marine Corps Combat Development Command (MCCDC) provides analytical review of all CNA products for the Marine Corps and integrates the results and recommendations into a quarterly newsletter for research and analysis. Other evaluation processes are as follows:

A) Contract Status Meetings: The Marine Corps participates in the DoN Contract Status Meetings. As part of the CNA oversight process, the Contracting Officer chairs a monthly meeting with the COTR, the Marine Corps, and members of the CNA Business Support Group to provide guidance regarding contract management. Issues range from reviewing the Defense Technical Information Center (DTIC) database requirements to emphasize the contractual requirement that all ongoing research be submitted to DTIC to ensure against duplication to reviewing CNA's cost effectiveness and efficiency.

B) Award Fee Evaluation Process: As required by CNA's contract with DoN, the Marine Corps participates in the CNA evaluation on a semi-annual basis throughout the entire five year performance period of Contract N00014-05-D-0500. Over 28 Marine Corps sponsors of CNA deliverables provide input regarding CNA's value to their respective organizations. Evaluations cover CNA's support to Marine Corps leadership and management, timeliness and quality of research, as well as cost effectiveness and efficiency. The Marine Corps' evaluation contributes to CNA's overall performance rating that is the primary basis for determining the amount, if any, of the available award fee earned by CNA.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605154N: <i>Center For Naval Analyses</i>	PROJECT 0031: <i>MCOAG</i>
<p>C) Marine Corps Three-Star Flag Officer Review: The Commanding General, Marine Corps Combat Development Command (MCCDC) and the Director, Operations Analysis Division meet several times per month to review the current fiscal year's research program and provide guidance to CNA regarding their future research requirements for the Marine Corps. These high level meetings are essential to provide CNA with Marine Corps' guidance to ensure that the research conducted is of the greatest value to the Marine Corps. The meetings also serve as the roadmap for research during the upcoming fiscal year. The Marine Corps' research plan is consolidated with the DoN's Annual Plan that is submitted to the Deputy Chief of Naval Operations for Integration of Capabilities and Resources (N8) for final review and acceptance.</p> <p>D) CNA Comprehensive Review: Prior to contract renewal, CNA, as a FFRDC, must be evaluated to ensure that the DoN wants to renew their contract for an additional five years. The Marine Corps conducts a comprehensive review of sponsors' technical needs and mission requirements, consideration of alternative sources, efficiency and effectiveness, and management and cost effectiveness that contributes to DoN's establishment of criteria and sponsorship agreement.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605154N: <i>Center For Naval Analyses</i>	PROJECT 0148: <i>Center For Naval Analyses (CNA)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0148: <i>Center For Naval Analyses (CNA)</i>	38.544	41.423	39.280	-	39.280	40.836	41.520	42.825	42.811	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 supports the Navy's portion of the CNA Research Program, which is primarily concentrated along thirteen Navy categories of study called product areas. These product areas include the following: 1) Policy and Operations; 2) Resources, Planning, and Assessments; 3) Research, Development, and Acquisition; 4) Infrastructure and Readiness; 5) Manpower, Medical, and Training; 6) Systems and Tactics; 7) Capabilities, Force Structure, and Systems; 8) Intelligence, Surveillance, and Reconnaissance; 9) Quadrennial Defense Review (QDR); 10) Navy Field Program; 11) Navy Scientific Analyst Program; 12) Navy Quick Response Projects; and (13) CNA Initiated Projects. CNA's analyses have resulted in substantial improvements in force structure, fleet effectiveness, and significant cost avoidance.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: CENTER FOR NAVAL ANALYSES, NAVY	38.544	41.423	39.280
Articles:	0	0	0
FY 2010 Accomplishments: - Continued to address issues of major importance to Navy leadership in the above research areas. CNA's Research Program was continually updated to support the Navy efficiently and effectively. Support for the CNA field program, which assigns analysts to thirty four locations around the world, including at sea, continued to comprise approximately 20% of the funding.			
FY 2011 Plans: - Continue all efforts of FY10.			
FY 2012 Plans: - Continue all efforts of FY11.			
Accomplishments/Planned Programs Subtotals	38.544	41.423	39.280

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605154N: <i>Center For Naval Analyses</i>	PROJECT 0148: <i>Center For Naval Analyses (CNA)</i>

E. Performance Metrics

CNA is reviewed throughout the research year on several different levels to ensure that research produced is not duplicated elsewhere. The primary (and most effective) method of review for duplication is the Contracting Officer's Technical Representative (COTR) review and approval of each and every project proposal submitted by CNA. This method is highly effective in providing the necessary oversight to ensure that duplication of effort does not occur. The Marine Corps Studies System (MCSS) maintains a comprehensive listing of all CNA studies performed for the USMC. The MCSS ensures there are no duplicate analytical efforts within the USMC. Additionally, the Studies and Analysis Division of Marine Corps Combat Development Command (MCCDC) provides analytical review of all CNA products for the USMC and integrates the results and recommendations into a quarterly newsletter and an annual plan for research and analysis. Other evaluation processes are as follows:

- A) DoN Contract Status Meetings - as part of the CNA oversight process, the ONR Contracting Officer chairs a monthly meeting with the COTR, the USMC, and members of the CNA Business Support Group to provide guidance regarding contract management. Issues range from reviewing the Defense Technical Information Center (DTIC) database requirements to emphasize the contractual requirement that all ongoing research be submitted to DTIC to ensure against duplication to reviewing CNA's cost effectiveness and efficiency.
- B) Award Fee Evaluation Process - as required by CNA's contract with DoN, CNA is evaluated on a semi-annual basis by the government throughout the entire five year performance period of Contract N00014-05-D-0500. Over 200 sponsors of CNA deliverables provide input regarding CNA's value to their respective organizations. CNA's support to DoN leadership and management, their timeliness and quality of research, as well as their cost effectiveness and efficiency are evaluated. CNA's overall performance rating is the primary basis for determining the amount, if any, of the available award fee earned by CNA.
- C) Two-Star Flag Officers and VCNO Corporate Board Meetings - DoN Two-Star and Three-Star Flag officers and their equivalent civilian counterparts meet several times a year to review the current fiscal year's research and provide guidance to CNA regarding their future research for DoN. These high level meetings are essential to provide CNA with DoN's guidance to ensure that the research conducted is of the greatest value to DoN. The meetings also serve as the catalyst for the formation of the CNA Annual Plan; CNA's roadmap for research during the upcoming fiscal year. The CNA Annual Plan is then submitted to the VCNO Corporate Board for their final review and acceptance.
- D) CNA Comprehensive Review - prior to contract renewal, CNA, as a FFRDC, must be evaluated to ensure that the DoN wants to renew their contract for an additional five years. DoN recently completed an exhaustive review of sponsors' technical needs and mission requirements; DoN's consideration of alternative sources; CNA's efficiency and effectiveness; CNA's management and cost effectiveness, as well as the establishment criteria and sponsorship agreement. The CNA Comprehensive Review was approved by ASN (RDA) and accepted by OSD (AT&L).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0605502N: <i>Small Business Innovative Research</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	414.266	-	0.010	-	0.010	0.015	0.012	0.013	0.012	Continuing	Continuing
0000: <i>UNDIST</i>	20.532	-	-	-	-	-	-	-	-	0.000	20.532
1812: <i>NAVAIR SBIR Program</i>	122.028	-	-	-	-	-	-	-	-	0.000	122.028
1813: <i>SPAWAR SBIR Program</i>	39.305	-	-	-	-	-	-	-	-	0.000	39.305
1814: <i>NAVSEA SBIR Program</i>	89.550	-	-	-	-	-	-	-	-	0.000	89.550
1824: <i>CMC SBIR Program</i>	18.166	-	-	-	-	-	-	-	-	0.000	18.166
1862: <i>SSPO SBIR Program</i>	1.050	-	-	-	-	-	-	-	-	0.000	1.050
1863: <i>NAVSUP SBIR Program</i>	0.800	-	-	-	-	-	-	-	-	0.000	.800
1864: <i>CNR SBIR Program</i>	45.123	-	-	-	-	-	-	-	-	0.000	45.123
1865: <i>SBIR Administration</i>	4.686	-	-	-	-	-	-	-	-	0.000	4.686
2016: <i>NAVFAC SBIR Program</i>	0.800	-	-	-	-	0.005	0.002	0.003	0.002	Continuing	Continuing
2204: <i>Small Business Tech Transfer Program</i>	23.092	-	-	-	-	-	-	-	-	0.000	23.092
2240: <i>Navy Dual Use Technology Program</i>	1.122	-	-	-	-	-	-	-	-	0.000	1.122
2241: <i>SBIR ADMIN - SPAWAR</i>	2.426	-	-	-	-	-	-	-	-	0.000	2.426
2242: <i>SBIR ADMIN - NAVSEA</i>	7.264	-	0.010	-	0.010	0.010	0.010	0.010	0.010	Continuing	Continuing
2243: <i>SBIR ADMIN - NAVAIR</i>	8.164	-	-	-	-	-	-	-	-	0.000	8.164
2244: <i>SBIR ADMIN - NAVFAC</i>	0.050	-	-	-	-	-	-	-	-	0.000	.050
2245: <i>SBIR ADMIN - NAVSUP</i>	0.050	-	-	-	-	-	-	-	-	0.000	.050
2248: <i>SBIR ADMIN - SSPO</i>	0.066	-	-	-	-	-	-	-	-	0.000	.066
2813: <i>SBIR - NSMA</i>	5.618	-	-	-	-	-	-	-	-	0.000	5.618
2814: <i>SBIR ADMIN - NSMA</i>	0.368	-	-	-	-	-	-	-	-	0.000	.368
3201: <i>SBIR CPP - NAVAIR</i>	1.334	-	-	-	-	-	-	-	-	0.000	1.334
3202: <i>SBIR CPP - SPAWAR</i>	0.397	-	-	-	-	-	-	-	-	0.000	.397
3203: <i>SBIR CPP - NAVSEA</i>	0.903	-	-	-	-	-	-	-	-	0.000	.903

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0605502N: <i>Small Business Innovative Research</i>							
3204: <i>SBIR CPP - MARINE CORPS</i>	0.183	-	-	-	-	-	-	-	-	0.000	.183
3205: <i>SBIR CPP - ONR</i>	0.638	-	-	-	-	-	-	-	-	0.000	.638
3213: <i>NAVAIR STTR Program</i>	16.363	-	-	-	-	-	-	-	-	0.000	16.363
3231: <i>SBIR Counterdrug</i>	0.595	-	-	-	-	-	-	-	-	0.000	.595
3233: <i>SPAWAR STTR Program</i>	2.000	-	-	-	-	-	-	-	-	0.000	2.000
9999: <i>Congressional Adds</i>	1.593	-	-	-	-	-	-	-	-	0.000	1.593

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. ONR program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Program Change Summary (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	1.593	-	-	-	-
Current President's Budget	414.266	-	0.010	-	0.010
Total Adjustments	412.673	-	0.010	-	0.010
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	412.673	-			
• Program Adjustments	-	-	0.010	-	0.010

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 9999: *Congressional Adds*

Congressional Add: *Wave Energy Harvesting for Buoy Applications*

Congressional Add Subtotals for Project: 9999

	FY 2010	FY 2011
	1.593	-
	1.593	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
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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 0605502N: <i>Small Business Innovative Research</i>
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Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2010		FY 2011
Congressional Add Totals for all Projects		1.593		-

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 0000: <i>UNDIST</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0000: <i>UNDIST</i>	20.532	-	-	-	-	-	-	-	-	0.000	20.532
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. ONR program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: UNDIST			
Articles:	20.532 0	-	-
FY 2010 Accomplishments: Phase I Feasibility The purpose of Phase I is to determine the scientific and technical merit and feasibility of the proposed effort and quality of performance by the SBC. ONR had 41 topics and made 141 Phase I awards in FY 2010. Phase II Technology Development Phase II awards are based on the SBC's Phase I results and potential of the Phase II proposal to address the Navy's needs. These awards further develop the technology, maturing the TRL and providing prototypes or other sources validating the technology. ONR made 37 Phase II awards in FY 2010.			
Accomplishments/Planned Programs Subtotals	20.532	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not Applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 0000: <i>UNDIST</i>

E. Performance Metrics

ONR awarded 141 Phase I, 37 Phase II's and 7 Phase III awards in FY 2010. The Phase III awards are contracts awarded by ONR during FY 2010 using non-SBIR funding for work that continues or procures the Phase I and II efforts. ONR also reduced the time firms are without funds between Phase I to II from 8.5 months in 2009 to 6.6 months in 2010 and averaged 3.9 months from the time of solicitation closing to Phase I award also down from 2009.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1812: <i>NAVAIR SBIR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1812: <i>NAVAIR SBIR Program</i>	122.028	-	-	-	-	-	-	-	-	0.000	122.028
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Naval Air Systems Command (NAVAIR) Small Business Innovation Research (SBIR) Program funds over one hundred million dollars annually in mission oriented research and development projects at small technology companies. The purpose of the program is to stimulate the development of new technologies to improve United States military and economic capabilities. The program is mandated by public laws (PL) 97-219, PL 99-443, PL 102-564, PL 106-554, PL 107-50, and PL 111-10 and is codified in 15 USC 638. The NAVAIR SBIR Program competitively funds scientific and technical innovation to specifically address the needs of NAVAIR acquisition programs.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
<p>Title: Phase I Feasibility</p> <p style="text-align: right;">Articles:</p> <p>FY 2010 Accomplishments: The purpose of Phase I is to determine the scientific technical and commercial merit, and feasibility of ideas submitted under the SBIR Program.</p>	24.406 0	-	-
<p>Title: Phase II Technology Development</p> <p style="text-align: right;">Articles:</p> <p>FY 2010 Accomplishments: Phase II awards are made to firms that have been awarded a Phase I contract on the basis of the results of their Phase I effort and the scientific, technical, and commercial merit of the Phase II proposal. Phase II is the principal research or research and development effort and is expected to produce a well-defined deliverable prototype.</p>	97.622 0	-	-
Accomplishments/Planned Programs Subtotals	122.028	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1812: <i>NAVAIR SBIR Program</i>

E. Performance Metrics

SBIR will advertise 90 topics during FY10 through three Department of Defense solicitations with approximately 265 new Phase I contracts. In addition we plan on awarding approximately 135 new Phase II contracts during FY10.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1813: <i>SPAWAR SBIR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1813: <i>SPAWAR SBIR Program</i>	39.305	-	-	-	-	-	-	-	-	0.000	39.305
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires that each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and 0.3% under the Small Business Technology Transfer (STTR) program. The SPAWAR SBIR program funds research that addresses the needs and mission of our command and has the potential to transition into follow-on RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR			
Articles:	39.305 0	-	-
FY 2010 Accomplishments: Phase I Feasibility The purpose of Phase I is to determine the scientific and technical merit and feasibility of the proposed effort and quality of performance by the SBC. SPAWAR made 46 Phase I awards and 10 Phase I Option awards in FY 2010 valued at \$3,512,903. Phase II Technology Development Phase II awards are based on the SBC's Phase I results and potential of the Phase II proposal to address the Navy's needs. These awards further develop the technology, maturing the TRL and providing prototypes or other sources validating the technology. SPAWAR made 34 Phase II awards, 22 Phase II Option awards, 22 Incremental Phase II awards, and eight Phase II.5 awards in FY 2010 valued at \$33,484,557.			
Accomplishments/Planned Programs Subtotals	39.305	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1813: <i>SPAWAR SBIR Program</i>

E. Performance Metrics

SPAWAR awarded 46 Phase I, 34 Phase II awards, 22 Phase II Option awards, 22 Incremental Phase II awards, eight Phase II.5 awards, and 12 Phase III awards in FY 2010. The Phase III awards, valued at \$15,935,625, are contracts awarded by SPAWAR during FY 2010 using non-SBIR funding for work that continues or procures the Phase I and II efforts. It is the strongest metric that shows the work funded under the SBIR program address a specific need by SPAWAR, but it does not measure the number of follow on funding provided by our primes and the private sector to advance and procure the technology.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1814: <i>NAVSEA SBIR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1814: <i>NAVSEA SBIR Program</i>	89.550	-	-	-	-	-	-	-	-	0.000	89.550
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. The program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR	89.550	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the Navy Small Business Innovative Research Program.			
Accomplishments/Planned Programs Subtotals	89.550	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1824: <i>CMC SBIR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1824: <i>CMC SBIR Program</i>	18.166	-	-	-	-	-	-	-	-	0.000	18.166
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. The program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR			
Articles:	18.166 0	-	-
FY 2010 Accomplishments: Support the Navy/Marine Small Business Innovative Research Program.			
Accomplishments/Planned Programs Subtotals	18.166	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1862: <i>SSPO SBIR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1862: <i>SSPO SBIR Program</i>	1.050	-	-	-	-	-	-	-	-	0.000	1.050
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. ONR program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR	1.050	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the Navy Small Business Innovative Research Program.			
Accomplishments/Planned Programs Subtotals	1.050	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1863: <i>NAVSUP SBIR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1863: <i>NAVSUP SBIR Program</i>	0.800	-	-	-	-	-	-	-	-	0.000	.800
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. The program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR	0.800	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the Navy Small Business Innovative Research Program.			
Accomplishments/Planned Programs Subtotals	0.800	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1864: <i>CNR SBIR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1864: <i>CNR SBIR Program</i>	45.123	-	-	-	-	-	-	-	-	0.000	45.123
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. ONR program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: CNR SBIR Program	45.123	-	-
Articles:	0		
FY 2010 Accomplishments: Phase I Feasibility The purpose of Phase I is to determine the scientific and technical merit and feasibility of the proposed effort and quality of performance by the SBC. ONR had 41 topics and made 141 Phase I awards in FY 2010. Phase II Technology Development Phase II awards are based on the SBC's Phase I results and potential of the Phase II proposal to address the Navy's needs. These awards further develop the technology, maturing the TRL and providing prototypes or other sources validating the technology. ONR made 37 Phase II awards in FY 2010.			
Accomplishments/Planned Programs Subtotals	45.123	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not Applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1864: <i>CNR SBIR Program</i>

E. Performance Metrics

ONR awarded 141 Phase I, 37 Phase II's and 7 Phase III awards in FY 2010. The Phase III awards are contracts awarded by ONR during FY 2010 using non-SBIR funding for work that continues or procures the Phase I and II efforts. ONR also reduced the time firms are without funds between Phase I to II from 8.5 months in 2009 to 6.6 months in 2010 and averaged 3.9 months from the time of solicitation closing to Phase I award also down from 2009.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 1865: <i>SBIR Administration</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1865: <i>SBIR Administration</i>	4.686	-	-	-	-	-	-	-	-	0.000	4.686
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The SBIR legislation prohibits any of the SBIR or STTR funds from being used to manage or administer the program. Additional funds are pulled to manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR Administration			
Articles:	4.686 0	-	-
FY 2010 Accomplishments: ONR awarded 141 Phase I, 37 Phase II's and 7 Phase III awards in FY 2010, while reducing the time for Phase I awards and between Phase II. A lot of effort was spent on increasing the involvement by the FNC managers and increasing the energy related topics as directed by SECNAV.			
Accomplishments/Planned Programs Subtotals	4.686	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

The entire ONR SBIR budget as mandated by law was obligated. This continues to be a challenge effort as the funds are released later in the Fiscal Year and the number of contract actions continues to increase. ONR continues to develop more efficient process while dealing with the challenges of not knowing when the next years funding will be released.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2016: <i>NAVFAC SBIR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2016: <i>NAVFAC SBIR Program</i>	0.800	-	-	-	-	0.005	0.002	0.003	0.002	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The SBIR program enables NAVFAC to competitively solicit industry to perform technology problem solving on new engineering capabilities that are required to overcome specific performance limitations of Naval shore facilities while reducing the cost of sustaining the Naval shore infrastructure. The program focuses available SBIR resources on satisfying facility requirements where the Navy is a major stakeholder or where there are no test validated Commercial Off The Shelf (COTS) solutions available, and a timely solution will not emerge without a Navy sponsored demonstration and validation.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR			
Articles:	0.800 0	-	-
FY 2010 Accomplishments: Continued development and transition of the all-weather intruder Ultra-Wide Band (UWB) radar detection and discrimination system for protecting entry across Naval shorefront environment. Continued development of the Robotic Paint Sprayer and Cleaner for tall antenna tower frameworks.			
Initiated three Phase I Advanced Shore Based Mooring feasibility studies for automatic ship handling along piers and wharfs. Initiated five Phase I feasibility studies of Energy Storage Systems for renewable sources by investigating the feasibility of improving lithium ion batteries and developing chemical fuel cells to store varied energy sources for later use.			
Accomplishments/Planned Programs Subtotals	0.800	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Quarterly program reviews to include funds status, schedule review, assessment of plan to actual and review of accomplishments and issues to date. Final Quarterly Review presentations are posted to the NAVFAC Portal, Capital Improvements, CTO.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2204: <i>Small Business Tech Transfer Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2204: <i>Small Business Tech Transfer Program</i>	23.092	-	-	-	-	-	-	-	-	0.000	23.092
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. ONR program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Small Business Tech Transfer Program	23.092	-	-
Articles:	0		
FY 2010 Accomplishments: Phase I Feasibility The purpose of Phase I is to determine the scientific and technical merit and feasibility of the proposed effort and quality of performance by the SBC. Navy had 46 topics and made 149 Phase I awards in FY 2010. Phase II Technology Development Phase II awards are based on the SBC's Phase I results and potential of the Phase II proposal to address the Navy's needs. These awards further develop the technology, maturing the TRL and providing prototypes or other sources validating the technology. Navy made 44 Phase II awards in FY 2010.			
Accomplishments/Planned Programs Subtotals	23.092	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2204: <i>Small Business Tech Transfer Program</i>

E. Performance Metrics

ONR awarded 149 Phase I and 44 Phase II's in FY 2010. Time firms are without funds between Phase I to II from 5.3 months in 2009 to 3.2 months in 2010 the best across the SBIR and STTR programs in the Navy and key metric for the small businesses under the program.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2240: <i>Navy Dual Use Technology Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2240: <i>Navy Dual Use Technology Program</i>	1.122	-	-	-	-	-	-	-	-	0.000	1.122
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Supports the Navy Dual Use Technology Program.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Navy Dual Use Program	1.122	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the Navy Dual Use Technology Program.			
Accomplishments/Planned Programs Subtotals	1.122	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2241: <i>SBIR ADMIN - SPAWAR</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2241: <i>SBIR ADMIN - SPAWAR</i>	2.426	-	-	-	-	-	-	-	-	0.000	2.426
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The SBIR legislation prohibits any of the SBIR or STTR funds from being used to manage or administer the program. Additional funds are pulled to manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR Admin Support	2.426	-	-
Articles:	0		
Description: Administrative support of the Navy Small Business Program.			
FY 2010 Accomplishments: SPAWAR awarded 46 Phase I, 34 Phase II awards, 22 Phase II Option awards, 22 Incremental Phase II awards, eight Phase II.5 awards, and 12 Phase III awards in FY 2010.			
Accomplishments/Planned Programs Subtotals	2.426	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

99.9% of the SPAWAR SBIR budget as mandated by law was obligated. This continues to be a challenging effort as the funds are released later in the Fiscal Year and the number of contract actions continues to increase. SPAWAR continues to develop more efficient processes while increasing the rate and percent of transition to Phase III.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2242: <i>SBIR ADMIN - NAVSEA</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2242: <i>SBIR ADMIN - NAVSEA</i>	7.264	-	0.010	-	0.010	0.010	0.010	0.010	0.010	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The SBIR legislation prohibits any of the SBIR or STTR funds from being used to manage or administer the program. Additional funds are pulled to manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR Admin Support	7.264	-	0.010
Articles:	0		0
FY 2010 Accomplishments: Administrative support of the SBIR Program.			
FY 2012 Plans: N/A			
Accomplishments/Planned Programs Subtotals	7.264	-	0.010

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2243: <i>SBIR ADMIN - NAVAIR</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2243: <i>SBIR ADMIN - NAVAIR</i>	8.164	-	-	-	-	-	-	-	-	0.000	8.164
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Naval Air Systems Command (NAVAIR) Small Business Innovation Research (SBIR) Program funds over one hundred million dollars annually in mission oriented research and development projects at small technology companies. The purpose of the program is to stimulate the development of new technologies to improve United States military and economic capabilities. The program is mandated by public laws (PL) 97-219, PL 99-443, PL 102-564, PL 106-554, PL 107-50, and PL 111-10 and is codified in 15 USC 638. The NAVAIR SBIR Program competitively funds scientific and technical innovation to specifically address the needs of NAVAIR acquisition programs. This project provides administrative support to the program.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR Admin Support	8.164	-	-
Articles:	0		
FY 2010 Accomplishments: Administrative support of the SBIR program.			
Accomplishments/Planned Programs Subtotals	8.164	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2244: <i>SBIR ADMIN - NAVFAC</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2244: <i>SBIR ADMIN - NAVFAC</i>	0.050	-	-	-	-	-	-	-	-	0.000	.050
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This Program funds Navy in-house administrative support of the Navy Small Business Programs. Initiate feasibility Phase I studies for new Energy Program Initiatives. Provide contractor technical, engineering and management support for program planning, analysis and execution.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR Admin Support			
Articles:	0.050 0	-	-
FY 2010 Accomplishments: Administrative support provided; monitored three SBIR Phase I Advanced Shore Based Mooring feasibility studies. Monitored five SBIR Phase I Energy Storage Systems for renewable sources and provided contractor technical, engineering and management support for program planning, analysis and execution.			
Accomplishments/Planned Programs Subtotals	0.050	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Efforts within this effort are measured at two levels. Internally, each is measured against technical and financial milestones on a monthly basis. Quarterly, each project is reviewed by the higher Echelon in depth for both technical and transition performance potential.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2245: <i>SBIR ADMIN - NAVSUP</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2245: <i>SBIR ADMIN - NAVSUP</i>	0.050	-	-	-	-	-	-	-	-	0.000	.050
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The SBIR legislation prohibits any of the SBIR or STTR funds from being used to manage or administer the program. Additional funds are pulled to manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR Admin Support	0.050	-	-
Articles:	0		
FY 2010 Accomplishments: Administrative support of the Navy Small Business Program.			
Accomplishments/Planned Programs Subtotals	0.050	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2248: <i>SBIR ADMIN - SSPO</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2248: <i>SBIR ADMIN - SSPO</i>	0.066	-	-	-	-	-	-	-	-	0.000	.066
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The SBIR legislation prohibits any of the SBIR or STTR funds from being used to manage or administer the program. Additional funds are pulled to manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR Admin Support	0.066	-	-
Articles:	0		
FY 2010 Accomplishments: Administrative support of the Navy Small Business Program.			
Accomplishments/Planned Programs Subtotals	0.066	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2813: <i>SBIR - NSMA</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2813: <i>SBIR - NSMA</i>	5.618	-	-	-	-	-	-	-	-	0.000	5.618
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. The program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR	5.618	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the Navy Small Business Innovative Research Program.			
Accomplishments/Planned Programs Subtotals	5.618	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 2814: <i>SBIR ADMIN - NSMA</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2814: <i>SBIR ADMIN - NSMA</i>	0.368	-	-	-	-	-	-	-	-	0.000	.368
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The SBIR legislation prohibits any of the SBIR or STTR funds from being used to manage or administer the program. Additional funds are pulled to manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR Admin Support			
Articles:	0.368 0	-	-
FY 2010 Accomplishments: Administrative support for the Navy Small Business Innovative Research Program.			
Accomplishments/Planned Programs Subtotals	0.368	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 3201: <i>SBIR CPP - NAVAIR</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3201: <i>SBIR CPP - NAVAIR</i>	1.334	-	-	-	-	-	-	-	-	0.000	1.334
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification
Section 252 of the 2006 NDAA Public Law No. 109-163 allowed up to 1% of the SBIR be used to fund the administrative costs of the Commercialization Pilot Program (CPP).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: SBIR CPP	1.334	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the Navy Small Business Innovative Research Program's Commercialization Pilot Program.			
Accomplishments/Planned Programs Subtotals	1.334	-	-

C. Other Program Funding Summary (\$ in Millions)
N/A

D. Acquisition Strategy
Not applicable.

E. Performance Metrics
Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 3202: <i>SBIR CPP - SPAWAR</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3202: <i>SBIR CPP - SPAWAR</i>	0.397	-	-	-	-	-	-	-	-	0.000	.397
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Section 252 of the 2006 NDAA Public Law No. 109-163 allowed up to 1% of the SBIR be used to fund the administrative costs of the Commercialization Pilot Program (CPP).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR CPP			
Articles:	0.397 0	-	-
FY 2010 Accomplishments: SPAWAR continues to manage a successful CPP effort which has led to many accelerated Phase II.5 projects that address clearly identified transition sponsor needs. In FY 2010, eight Ph II.5 contracts were awarded at SPAWAR valued at \$2,825,616.			
Accomplishments/Planned Programs Subtotals	0.397	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

SPAWAR CPP initiatives continue to benefit our command and these funds have been used to help support the PEO and PM in support of SBIR projects that directly address their needs.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 3203: <i>SBIR CPP - NAVSEA</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3203: <i>SBIR CPP - NAVSEA</i>	0.903	-	-	-	-	-	-	-	-	0.000	.903
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Section 252 of the 2006 NDAA Public Law No. 109-163 allowed up to 1% of the SBIR be used to fund the administrative costs of the Commercialization Pilot Program (CPP).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR CPP	0.903	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the Navy Small Business Innovative Research Program's Commercialization Pilot Program.			
Accomplishments/Planned Programs Subtotals	0.903	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 3204: <i>SBIR CPP - MARINE CORPS</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3204: <i>SBIR CPP - MARINE CORPS</i>	0.183	-	-	-	-	-	-	-	-	0.000	.183
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Section 252 of the 2006 NDAA Public Law No. 109-163 allowed up to 1% of the SBIR be used to fund the administrative costs of the Commercialization Pilot Program (CPP).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR CPP	0.183	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the Navy Small Business Innovative Research Program's Commercialization Pilot Program.			
Accomplishments/Planned Programs Subtotals	0.183	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 3205: <i>SBIR CPP - ONR</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3205: <i>SBIR CPP - ONR</i>	0.638	-	-	-	-	-	-	-	-	0.000	.638
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Section 252 of the 2006 NDAA Public Law No. 109-163 allowed up to 1% of the SBIR be used to fund the administrative costs of the Commercialization Pilot Program (CPP).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR CPP - ONR	0.638	-	-
Articles:	0		
FY 2010 Accomplishments: ONR continues to manage a successful CPP effort which has led to many accelerated Phase II.5 projects that addresses clearly identified transition sponsor needs.			
Accomplishments/Planned Programs Subtotals	0.638	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not Applicable.

E. Performance Metrics

ONR CPP initiatives continue to benefit our command and these funds have been used to help support the PEO and PM in support of SBIR projects that directly address their needs.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 3213: <i>NAVAIR STTR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3213: <i>NAVAIR STTR Program</i>	16.363	-	-	-	-	-	-	-	-	0.000	16.363
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. The program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Small Business Tech Transfer Program	16.363	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the Navy Small Business Tech Transfer Program.			
Accomplishments/Planned Programs Subtotals	16.363	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 3231: <i>SBIR Counterdrug</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3231: <i>SBIR Counterdrug</i>	0.595	-	-	-	-	-	-	-	-	0.000	.595
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires the each Federal agency that has an extramural budget for R/R&D in excess of \$100,000,000 must participate, shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and .3% under the Small Business Technology Transfer (STTR) program. ONR program funds research which address the needs and mission of our command and has the potential to transition into follow on FNC, RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SBIR Counterdrug	0.595	-	-
Articles:	0		
FY 2010 Accomplishments: Supports the SBIR Counterdrug Program.			
Accomplishments/Planned Programs Subtotals	0.595	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not Applicable.

E. Performance Metrics

Not Applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 3233: <i>SPAWAR STTR Program</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3233: SPAWAR STTR Program	2.000	-	-	-	-	-	-	-	-	0.000	2.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Small Business Research and Development Enhancement Act of 1992 as amended (15 U.S.C. 638) requires that each Federal agency that has an extramural budget for Research & Development in excess of \$100,000,000 shall expend with small business concerns (SBC) not less than 2.5% for specific small business research initiatives awarded through a Small Business Innovation Research (SBIR) solicitation and 0.3% under the Small Business Technology Transfer (STTR) program. The SPAWAR SBIR program funds research that addresses the needs and mission of our command and has the potential to transition into follow-on RDT&E and procurement activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Small Business Tech Transfer Program			
Articles:	2.000 0	-	-
FY 2010 Accomplishments: Phase I Feasibility Phase I awards were done to determine the scientific and technical merit and feasibility of proposed efforts and the quality of performance by small business concerns (SBC). 46 Phase I awards and 10 Phase I Option awards were done in FY 2010 valued at \$3,512,903. Phase II Technology Development Phase II awards were based on the SBC's Phase I results and potential of the Phase II proposal to address the Navy's needs. These awards further develop the technology, maturing the TRL and providing prototypes or other sources validating technology. 34 Phase II awards, 22 Phase II Option awards, 22 Incremental Phase II awards, and 8 Phase II.5 awards were done in FY 2010 valued at \$33,484,557.			
Accomplishments/Planned Programs Subtotals	2.000	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 3233: <i>SPAWAR STTR Program</i>

E. Performance Metrics

The Space and Naval Warfare Systems Command (SPAWAR) awarded 46 Phase I awards, 34 Phase II awards, 22 Phase II Option awards, 22 Incremental Phase II awards, eight Phase II.5 awards, and 12 Phase III awards in FY 2010. The Phase III awards, valued at \$15,935,625, were contracts awarded using non-SBIR funding for work that continued or procured the Phase I and II efforts. This metric shows the work funded under the SBIR program that addresses a specific need by SPAWAR.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605502N: <i>Small Business Innovative Research</i>	PROJECT 9999: <i>Congressional Adds</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	1.593	-	-	-	-	-	-	-	-	0.000	1.593
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Congressional Interest Items not included in other Projects.

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

	FY 2010	FY 2011
Congressional Add: Wave Energy Harvesting for Buoy Applications	1.593	-
FY 2010 Accomplishments: This effort supported the development of an ocean buoy that derives its power by converting energy from the surface wave field.		
Congressional Adds Subtotals	1.593	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not Applicable.

E. Performance Metrics

Not Applicable.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0605804N: <i>Technical Information Services</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	21.173	0.662	0.571	-	0.571	0.556	0.565	0.584	0.595	Continuing	Continuing
0835: <i>Tech Info System</i>	0.705	0.662	0.571	-	0.571	0.556	0.565	0.584	0.595	Continuing	Continuing
2296: <i>Federal Lab Consortium</i>	0.451	-	-	-	-	-	-	-	-	0.000	.451
9999: <i>Congressional Adds</i>	20.017	-	-	-	-	-	-	-	-	0.000	20.017

A. Mission Description and Budget Item Justification

The Technical Information Services program provides support to achieve affordability in the development of Navy systems by reducing life-cycle costs through the facilitation of advanced technology associations between U.S. industry and the Navy. Warfighting effectiveness is enhanced through strategic relationships with industry to commercialize the science and technology developed by the Naval Research Enterprise and to gain: strategic understanding of industry Independent Research and Development Programs and plans; access concepts and technologies; and access to business practices within the civil sector.

B. Program Change Summary (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	20.749	0.662	0.705	-	0.705
Current President's Budget	21.173	0.662	0.571	-	0.571
Total Adjustments	0.424	-	-0.134	-	-0.134
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	0.433	-			
• Program Adjustments	-	-	-0.121	-	-0.121
• Section 219 Reprogramming	-0.008	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.013	-	-0.013
• Congressional General Reductions Adjustments	-0.001	-	-	-	-

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 9999: *Congressional Adds*

Congressional Add: *Hawaii Technology Development Venture*

Congressional Add: *Technology Transfer Office*

	FY 2010	FY 2011
	9.959	-
	1.494	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605804N: <i>Technical Information Services</i>
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Congressional Add Details (\$ in Millions, and Includes General Reductions)

Congressional Add: *Virtual Business Accelerator for the Silicon Prairie*

Congressional Add: *Commercialization of Advanced Technology*

Congressional Add: *Integrated Manufacturing Enterprise*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

	FY 2010	FY 2011
Congressional Add: <i>Virtual Business Accelerator for the Silicon Prairie</i>	1.593	-
Congressional Add: <i>Commercialization of Advanced Technology</i>	1.992	-
Congressional Add: <i>Integrated Manufacturing Enterprise</i>	4.979	-
Congressional Add Subtotals for Project: 9999	20.017	-
Congressional Add Totals for all Projects	20.017	-

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605804N: <i>Technical Information Services</i>	PROJECT 0835: <i>Tech Info System</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0835: <i>Tech Info System</i>	0.705	0.662	0.571	-	0.571	0.556	0.565	0.584	0.595	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The goal for this project is to enhance warfighter effectiveness by: leveraging industry independent Research and Development science and technology base; developing strategic partnerships with industry to transition private sector technology; and transferring appropriate Navy-developed innovative concepts and inventions to the private sector for purposes of commercialization. (Public Law 96-480, Federal Technology Transfer Act of 1986)

This project also provides the Department of the Navy (DoN) interface to the Office of the Deputy Under Secretary of Defense for Science and Technology, Office of Technology Transition, and to the Assistant Secretary of Commerce for Technology Policy for matters relating to policy and reporting requirements for technology transfer.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: TECHNICAL INFORMATION SERVICES	0.705	0.662	0.571
Articles:	0	0	0
Description: Technical Information Services supports the spin-in and spin-out of research and development performed by Navy laboratories and industry. This program develops the tools and provides management oversight of the DoN Domestic Technology Transfer (T2) Program.			
FY 2010 Accomplishments:			
<ul style="list-style-type: none"> - Completed leveraging Master of Business Administration (MBA) technology commercialization course to perform intellectual property assessments, conduct market studies and find potential licensing partners. - Continue leveraging with the Naval Research Enterprise Intern Program (NREIP) to fund student interns to support the Navy Office of Research and Technology Application (ORTA) activities. - Initiated effort for Phase II of Navy Defense Technology Transfer Information System (NDTTIS) database to include patent licensing tracking. - Initiated effort for Phase II of ONR technology transfer website to include content management. - Initiated two new pilot programs to support T2 efforts at Navy Office of Research and Technology Application (ORTA) activities across Navy laboratories. 			
FY 2011 Plans:			
- Continue all efforts of FY 2010, less those noted as completed above.			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605804N: <i>Technical Information Services</i>	PROJECT 0835: <i>Tech Info System</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> - Initiate development of a database to capture value of technology transfer to the Navy and, if possible, platform insertion information. - Initiate effort to raise visibility of Navy technologies through a more widely defined publications program. - Initiate study to analyze trends of Cooperative Research and Development Agreements in the Navy Defense Technology Transfer Information System (NDTTIS). - Initiate two new pilot programs to support T2 efforts at ORTAs across Navy laboratories. <p><i>FY 2012 Plans:</i> FY2012 Plans - Continue all efforts of FY 2011, less those noted as completed above.</p> <ul style="list-style-type: none"> - Initiate effort to implement Navy participation in support of new DoD T2 Strategic Plan. - Initiate effort to advance the Navy engagement in the DOD 1401 T2 Program. - Initiate effort to increase intellectual property mining activities at Navy laboratories. - Initiate effort for Phase III of Navy Defense Technology Transfer Information System (NDTTIS) database to include value/impact of CRADAs. - Initiate two new pilot programs to support T2 efforts at ORTAs across Navy laboratories. 			
Accomplishments/Planned Programs Subtotals	0.705	0.662	0.571

C. Other Program Funding Summary (\$ in Millions)
N/A

D. Acquisition Strategy
Not applicable.

E. Performance Metrics
Demonstrate support for technological transitions from the Naval Research Enterprise into industrial and commercial enterprises supporting Navy programs of record and warfighter needs, by being responsive to Offices of Research and Technology Applications focal points for technology transfer in their development of Cooperative Research and Development Agreements (CRADA), and reducing transaction/information exchange timeframes by 25%.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605804N: <i>Technical Information Services</i>	PROJECT 2296: <i>Federal Lab Consortium</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2296: <i>Federal Lab Consortium</i>	0.451	-	-	-	-	-	-	-	-	0.000	.451
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Federal Laboratory Consortium for Technology Transfer (FLC) was established by Congress under the Federal Technology Transfer Act of 1986 (P.L. 99-502, 20 October 1986, as amended). The FLC, in cooperation with federal laboratories and the private sector, provides services to enhance the transfer of federally-developed technology to include activities such as: developing and administering technology transfer training courses and materials; assisting Federal agencies and laboratories in their technology transfer programs; and providing a clearinghouse for technology transfer requests.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Federal Lab Consortium	0.451	-	-
Articles:	0		
FY 2010 Accomplishments: Provided services to enhance the transfer of federally-developed technology to include activities such as: developing and administering technology transfer training courses and materials; assisting Federal agencies and laboratories in their technology transfer programs; and providing a clearinghouse for technology transfer requests.			
Accomplishments/Planned Programs Subtotals	0.451	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

In accordance with the Federal Technology Transfer Act of 1986 (P.L. 99-502, 20 October 1986, as amended), disseminated funding judiciously.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	20.017	-	-	-	-	-	-	-	-	0.000	20.017
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Congressional Interest Items not included in other Projects.

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

	FY 2010	FY 2011
Congressional Add: Hawaii Technology Development Venture <i>FY 2010 Accomplishments:</i> This effort provided competitive grants to high technology research projects for small businesses primarily in Hawaii.	9.959	-
Congressional Add: Technology Transfer Office <i>FY 2010 Accomplishments:</i> This effort provided funding to assist the technology transfer office for NSWC Indian Head with facilitating the transfer of commercially useful technologies from federal laboratories to the private sector.	1.494	-
Congressional Add: Virtual Business Accelerator for the Silicon Prairie <i>FY 2010 Accomplishments:</i> This effort improved access to technology originators through collaboration with the Virtual Business Accelerator for the Silicon Prairie (VBA-SP) to bring forth the underutilized Heartland talent as a cost-effective alternative to off-shoring of American skilled labor.	1.593	-
Congressional Add: Commercialization of Advanced Technology <i>FY 2010 Accomplishments:</i> This effort developed commercial and alternative applications of government-sponsored technologies and developed high-tech solutions using advances in technology from academia and the private sector for use in government-defined priority issues.	1.992	-
Congressional Add: Integrated Manufacturing Enterprise <i>FY 2010 Accomplishments:</i> This effort designed and improved manufacturing efficiencies across the Defense industrial base in general and U.S. Navy shipbuilding in particular and developed an infrastructure to leverage and deliver a wide spectrum of capabilities available within the manufacturing community.	4.979	-
Congressional Adds Subtotals	20.017	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605804N: <i>Technical Information Services</i>	PROJECT 9999: <i>Congressional Adds</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Congressional add

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	57.012	58.329	68.301	-	68.301	57.606	58.264	59.452	74.063	Continuing	Continuing
0149: <i>International Coop RDT&E</i>	4.842	5.273	3.506	-	3.506	4.110	3.726	3.797	3.878	Continuing	Continuing
1767: <i>Naval War Col Strategic Studies Supt</i>	4.464	4.438	3.927	-	3.927	4.564	4.659	4.746	4.828	Continuing	Continuing
2221.: <i>JT Mission Assessment Studies</i>	28.100	27.963	40.940	-	40.940	25.758	26.270	26.805	27.332	Continuing	Continuing
3025: <i>Mid-Range Financial Improvement Plans</i>	1.532	1.436	1.244	-	1.244	1.462	1.503	1.544	1.582	Continuing	Continuing
3039: <i>CHENG</i>	18.074	19.219	16.566	-	16.566	19.274	19.668	20.122	20.489	Continuing	Continuing
3330: <i>Naval Research Laboratory (NRL) Facilities Modernization</i>	-	-	2.118	-	2.118	2.438	2.438	2.438	15.954	Continuing	Continuing

A. Mission Description and Budget Item Justification

International Cooperative RDT&E: provide program management, execution, and support to implement a broad range of cooperative Naval Research and Development, Test and Evaluation initiatives to improve coalition interoperability, harmonize US Navy requirements with allied and friendly nations, and identify cooperative international opportunities, and improve coalition interoperability. In addition, it develops coherent approaches, coordinating with partner nations, to sea-based missile defense, command, control, communications, computers and intelligence (C4I), and cooperative acquisition programs while also identifying technology to support the Global Maritime Partnership initiative.

Naval War College Strategic Studies Support: Provides research, analysis and gaming activities which serve as a focal point, stimulus, and major source of strategic and operational thought within the Navy, joint and interagency communities. These efforts generate strategic and operational alternatives, quantitative analysis, war gaming and political military assessments, and provide recommendations regarding the formulation and execution of maritime options. The War Gaming Department plans, designs, executes, analyzes and reports on the Navy's Title 10 war games. These war games provide analytical input to the Navy's Strategic Plan, assessments of future concepts, and recommendations to the Navy's Quadrennial Defense Review, force design, and strategy process. The War Gaming Department also designs, executes and analyzes war games for theater security cooperation plans and operational war fighting issues.

Assessment Program: Provides capability based planning assessment for Joint Capabilities Integration and Development System, conducts analysis to affect war fighting capability trades and enterprise resources, identifies needs, gaps, and overlaps, and assesses alternative solutions to Joint needs. Supports both the development and use of modeling, simulation, and analytically based warfare and provides business analyses and analytic tools that are the basis for decision making with respect to Concepts of Operations (CONOPS); Command, Controls, Communications, Computers, Intelligence, Surveillance and Reconnaissance Systems, FORCEnet; warfare systems (Sea Strike, Sea Shield, and Sea Basing) and their architectures; force structure; and the Navy's core "organize, train, and equip

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	
<p>mission" (the war fare and provider enterprises). Provides overarching Planning, Programming, Budgeting and Execution System (PPBES) analyses and guidance for PPBES which provides gap analysis and investment strategy and total obligation authority allocation. Provides independent capability analysis and assists in structuring follow-on analyses. Coordinates Navy's position for the enhanced planning process and conducts net assessments. This program serves as the lead campaign analysis group for Navy investment strategy assessments, all of which prove analytical underpinnings and basis for programmatic decisions of the Navy's top leadership regarding the integration of all Navy warfare and support requirements. This program supports "A Cooperative Strategy for 21st Century Seapower 21" as modified by the Maritime Strategy which charts a course for the Navy, Coast Guard and Marine Corps to work collectively and with international partners to prevent crises from occurring or reacting quickly should one occur to avoid negative impact to the United States. This program serves as an independent assessor providing a broad-view perspective across the Navy staff, with an integrated look at both war fighting and war fighting support programs. The program supports the world class modeling efforts to attain a level of modeling and simulation capability that is world class and establishes the Navy as a leader in the Department of Defense (DoD) modeling and simulation community. Provides alternatives in assessing the implications imbedded within resource decisions in a quantified context of costs versus capability versus risk. This program provides independent analytic support to Navy leadership in conjunction with various executive level decision forums. The Assessment Program develops tools and analytical methodologies that assist in evaluating Navy programs and provides technical leadership for the analysis functional area of Naval Modeling and Simulation.</p> <p>Mid-Range Financial Improvement Plans: This project supports the Research Development Test & Evaluation, Navy (RD TEN) portion of the larger DoD and Navy-wide effort to implement the financial improvement plan. Corrective actions are required to resolve known deficiencies and determine resource requirements (people and systems) have been identified. Funding is for the sustainment of clean and auditable statements for RD TEN.</p> <p>Operations Integration Group: Classified</p> <p>CHENG: Develops and implements architecture-based systems engineering processes, methods and tools that assure integrated and interoperable systems are delivered to the fleet. This project provides the mission-oriented technical basis for implementing capability-based acquisition management within the Navy to engineer and field Navy and Marine Corps combat systems, weapon systems, and command, control, communication, computer and intelligence programs that must operate as family-of-systems (FoS) or system-of-systems (SoS). The focus of this project is on identifying the functions, relationships, and connections between systems at both the force and unit level and across warfare mission areas, and encompasses three key elements: Systems Engineering to provide the framework for making engineering decisions by war fighting capability at the FoS/SoS level and support consistent engineering and investment decision-making across Navy and Marine Corps programs within capability-based acquisition portfolios. Naval collaborative engineering environment development and implementation as a Navy enterprise resource for naval integration and interoperability information to enable collaboration and decision support among all Navy organizations. Standards, policies and guidelines engineering and technical staff to implement Navy, OSD and joint integration and interoperability and anti-tamper requirements.</p> <p>Naval Research Laboratory (NRL)Facilities Modernization: This program has been established to provide a systematic and planned approach to improve vital in-house science and technology (S&T) laboratory facilities which are reaching or have reached critical stages of deterioration. The program includes restoration and modernization (R&M) initiatives for about 350,000 net square feet, where the average age of the buildings is 67 years old.</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>
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B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	60.181	58.329	59.000	-	59.000
Current President's Budget	57.012	58.329	68.301	-	68.301
Total Adjustments	-3.169	-	9.301	-	9.301
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-1.400	-			
• SBIR/STTR Transfer	-1.567	-			
• Program Adjustments	-	-	9.807	-	9.807
• Section 219 Reprogramming	-0.138	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.506	-	-0.506
• Congressional General Reductions Adjustments	-0.064	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 0149: <i>International Coop RDT&E</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0149: <i>International Coop RDT&E</i>	4.842	5.273	3.506	-	3.506	4.110	3.726	3.797	3.878	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Provides program management, execution, and support to implement a broad range of cooperative naval Research and Development, Test and Evaluation (RDT&E) initiatives to improve coalition interoperability, harmonize US Navy requirements with allied and friendly nations, identify cooperative international opportunities, and improve coalition interoperability. In addition, it develops coherent approaches in coordination with combatant commanders (COCOMs), and appropriate partner nations, to sea-based missile defense, command, control, communications, computers and intelligence (C4I), and cooperative acquisition programs while also identifying technology to support the Global Maritime Partnership Initiative.

The project scope was expanded from primarily North Atlantic Treaty Organization (NATO)-centric to include Overseas Contingency Operations (OCO), and Maritime Domain Awareness (MDA) emphasis. Relationships have been, and are being initiated with a greatly expanded and diverse group of maritime countries, particularly those with nascent and littoral navies, located in new regions critical to U.S. security. The project was restructured internally to both maintain ongoing international relationships and projects, while preparing to facilitate support for a global network of maritime nations under MDA and increase OCO-related support requirements.

Ongoing cooperative RDT&E programs, projects and exchanges are pursued to identify cooperative acquisition programs, enhance OCO efforts and MDA development, fill capability gaps, improve US/coalition interoperability, and set standardization with international partners. Such efforts have resulted in:

1. Negotiating and developing approximately 57 international RDT&E Agreements annually with allied and friendly nations;
2. Executing approximately 300 Information Exchange Annexes (IEAs) with foreign partners;
3. Improving IEA information dissemination with allied and friendly countries and within Department of the Navy (DoN);
4. Coordinating Navy inputs to the Office of the Under Secretary of Defense (OUSD) Acquisition, Technology, and Logistics (AT&L) Foreign Comparative Test (FCT) Program, and Coalition Warfare Program (CWT) as well as the DoN Technology Transfer Security Assistance Review Boards (TTSARB).
5. Represent the US Navy in Office of the Secretary of Defense (OSD) directed Armaments Cooperation Forums, including the Conference of NATO Armaments Directors' groups {NATO Naval Armaments Group (NNAG)}, and Senior National Representative-Maritime (SNR-M);
6. Funding of various international RDT&E support databases including Technical Project Officer (TPO), International Agreement Generators, Information/Data Exchange Agreements, and Project Agreements/Memorandums of Understanding;
7. Leading the Engineering and Scientist Exchange Program (ESEP).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: International Coop RDT&E	4.842	5.273	3.506
Articles:	0	0	0
FY 2010 Accomplishments:			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 0149: <i>International Coop RDT&E</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
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Maintained internal DoN international databases to support international cooperative activities and projects with allies. Assessed functional ability to integrate DoN international databases across OPNAV departments to improve leveraging of program dollars, fielding of better products and speeding delivery.

- Continued to support Maritime Theater Missile Defense Forum that obtained \$8.1M in R&D monies from Partner Nation contributions. The multi-lateral forum (9 Maritime Partner countries and the US Navy) entered into four international agreements (Battle Management Command, Control, Communications, Computers and Intelligence (BMC4I); Distributed Engineering Plant; Open Architecture; and Modeling and Simulation (M&S). The Maritime Theater Missile Defense Forum has a goal of an at-sea capability demonstration in 2015.
- Continued US Navy International Bench, a new internet-based connector and composeable tool to enhance collaboration between US military and agency personnel engaged in international work. Continued to coordinate US Navy's participation in OUSD AT&L's Foreign Comparative Test (FCT) Program and the Coalition Warfare Program (CWP) selection processes to meet emerging military Capability requirements.
- Continued execution of approximately 300 Information Exchange Agreements/Date Exchange Agreements (IEA/DEA) with more than 30 countries.
- Continued execution and support in placement of US Navy and partner nation engineers and scientists under OSD's Engineer and Scientist Exchange Program (ESEP). Funded various evolving potential cooperative exchanges and projects contributing to Maritime Domain Awareness (MDA) and irregular warfare including Multi-Mission Aircraft (MMA), Broad Area Maritime Surveillance (BAMS), Submarine Littoral Weapons System, and Swimmer Engagement. Coordinated US Navy support to OUSD (AT&L) International Cooperation office. Supported new CNO-Initiated Strategy Dialogue with Australia, including Air and Expeditionary Warfare Working Groups for mutual development of requirements and projects. Supported NATO Naval Armaments Group (NNAG) and Five Power Groups on cooperative programs including harbor protection, electronic warfare, and Defense Against Terrorism (DAT) trials.

FY 2011 Plans:

- Continue all efforts of FY10.

FY 2012 Plans:

- Continue all efforts of FY11.

Accomplishments/Planned Programs Subtotals	4.842	5.273	3.506
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C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

The Navy International Cooperative RDT&E project supports the implementation of many international cooperative program activities throughout the Department of the Navy (DoN) RDT&E communities. The project funds DoN participation in NATO and OSD lead Armaments Cooperation as well as DoN lead international cooperation that promotes coalition interoperability and set standards with international partners. The focused activities under this project maximize the DoN's efforts by leveraging international technologies and funding to fill capabilities gaps, gain access to foreign research and testing data, and avoid duplication of research and development efforts. The performance goals and metrics are, in cooperation with Maritime Partner nations, to set and harmonize requirements, utilize respective technologies, encourage financial contributions and facilities use, and support forums and work that reduce DoN funding requirements.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>				PROJECT 1767: <i>Naval War Col Strategic Studies Supt</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1767: <i>Naval War Col Strategic Studies Supt</i>	4.464	4.438	3.927	-	3.927	4.564	4.659	4.746	4.828	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Naval War College (NWC) research, analysis and gaming activities serve as a focal point, stimulus, and major source of strategic and operational thought within the Navy, Joint and Interagency communities. These efforts generate strategic and operational alternatives, tactical imperatives, quantitative analysis, war gaming, political-military assessments, and provide recommendations to the Chief of Naval Operations (CNO), Fleet Commanders and numbered Fleet Commanders regarding the formulation and execution of maritime options for the President of the United States.

This project provides research, analysis and war gaming to meet the needs of the Navy. Performance is measured in terms of both the quantity and quality of war games, analysis and the extent to which demand for war games and research products can be accommodated within funding levels. Results of research products and war games are evaluated through customer feedback and the extent to which findings are incorporated into follow-on research and practical applications such as Navy doctrine, operational tactics, and programming decisions made during the Planning, Programming, Budgeting & Execution (PPBE) process.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Strategic Studies	1.083	1.067	1.460
Articles:	0	0	0
Description: Naval War College (NWC) conducts research in strategic studies in response to tasking from the Navy and Combatant Commanders (COCOMS). NWC also hosts the activities of the CNO's Strategic Studies Group (SSG). The CNO SSG is a select group of senior naval officers handpicked by the CNO, who report to him in the development of revolutionary war fighting and operational concepts, such as Sea Strike and FORCENet.			
FY 2010 Accomplishments:			
<ul style="list-style-type: none"> - Conducted research and analysis projects and provided supporting events. - Supported staff on operational and strategic level of war tasked research projects. - CNO SSG tasking from the CNO to SSG XXIX generated revolutionary operating and war fighting concepts for maritime operations in the age of hypersonic and directed energy weapons. Following up on actions resulting from SSG XXVII Final Report "The Unmanned Imperative." 			
FY 2011 Plans:			
<ul style="list-style-type: none"> - Conduct research and analysis projects and provide supporting events. - Continue to support the staff on tasked research projects. 			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<p>- CNO SSG tasking from the CNO to SSG XXX to generate revolutionary operating and war fighting concepts for future Navy and maritime operations. Following up on actions resulting from SSG XXIX Final Report.</p> <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Conduct research and analysis projects and provide supporting events. - Continue to support the staff on tasked research projects. - CNO SSG tasking from the CNO to SSG XXX to generate revolutionary operating and war fighting concepts for future Navy and maritime operations. Following up on actions resulting from SSG XXIX Final Report. 					
<p>Title: Naval War Gaming Support</p> <p align="right">Articles:</p> <p>Description: Naval War College (NWC) conducts strategic and operational war gaming and research. Each year, 50-60 major war games and associated events provide support to efforts that explore and analyze military, political, informational and economic aspects of differing strategic and operational scenarios and tactical imperatives.</p> <p>FY 2010 Accomplishments:</p> <ul style="list-style-type: none"> - Continued to conduct 55-60 major war games and related events. - Continued to support Navy Title X war games, research, and analysis. Continued to provide war gaming expertise to other services' Title 10 war games. - Continued to provide research, analysis, and war gaming support to senior Navy leadership in areas as directed, such as maritime domain awareness (MDA), force structure, and logistics. - Continued to foster and sustain cooperative relationships with international partners through the use of war gaming, research, and analysis. - Continued to conduct research supporting war games co-sponsored with US Joint Forces Command. - Continued to conduct analytic research on maritime security cooperation planning and systems thinking. - Continued to conduct advanced research and analysis on determining measures of effectiveness for implementation of Cooperative Strategy for 21st Century Seapower. - Continued to conduct high level policy analytic research and gaming addressing Proliferation Security Initiatives for Office of the Secretary of Defense (OSD). - Developed war gaming, research and analytical support for Navy core capabilities, such as deterrence, maritime security, and sea control. - Continued and expanded international War Gaming in support of Maritime Security Cooperation. - Continued to conduct research and develop advanced gaming for Joint/Combined Force Maritime Component Commander Flag Officer Course and Maritime Staff Officers Course. 			2.048 0	2.019 0	1.481 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 1767: <i>Naval War Col Strategic Studies Supt</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> - Continued to develop educational materials for the Maritime Advanced Warfighting School (formerly the Naval Operations Planners Course). - Continued to conduct research and analysis on key operational challenges such as theater anti-submarine warfare, maritime missile defense, global maritime security, maritime homeland defense, MDA, and sea basing. - Continued to develop advanced war gaming analytical methods and tools. <p>FY 2011 Plans:</p> <ul style="list-style-type: none"> - Continue to conduct 55-60 major war games and related events. - Continue to support Navy Title X war games, research, and analysis. Continued to provide war gaming expertise to other services' Title 10 war games. - Continue to provide research, analysis, and war gaming support to senior Navy leadership in areas as directed, such as MDA, Irregular Warfare, cyber, and Command, Controls, Communications, Computers, Intelligence, Surveillance, and Reconnaissance Systems (C4ISR). - Continue to foster and sustain cooperative relationships with international partners through the use of war gaming, research, and analysis. - Continue to conduct research supporting war games co-sponsored with US Joint Forces Command. - Continue to conduct analytic research on maritime security cooperation planning and systems thinking. - Support advance concepts in war fighting areas of interest, such as critical infrastructure protection. - Continue to conduct advanced research and analysis for OPNAV on determining measures of effectiveness for implementation of Cooperative Strategy for 21st Century Seapower. - Continue to conduct high level policy analytic research and gaming addressing Proliferation Security Initiatives for Office of the OSD. - Continue war gaming, research and analytical support for Navy core capabilities, such as deterrence, maritime security, and sea control. - Continue and expand international War Gaming in support of Maritime Security Cooperation and implementation of Cooperative Strategy for 21st Century Seapower. - Continue to conduct research and develop advanced gaming for Joint/Combined Force Maritime Component Commander Flag Officer Course and Maritime Staff Officers Course. - Continue to develop educational materials for the Maritime Advanced Warfighting School (formerly the Naval Operations Planners Course). - Continued to conduct research and analysis on key operational challenges such as theater anti-submarine Warfare, maritime missile defense, global maritime security, maritime homeland defense, MDA, and sea basing. 			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> - Continue to develop advanced war gaming analytical methods and tools. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Continue to conduct 55-60 major war games and related events. - Continue to support Navy Title X war games, research, and analysis. Continued to provide war gaming expertise to other services' Title 10 war games. - Continue to provide research, analysis, and war gaming support to senior Navy leadership in areas as directed, such as MDA, Irregular Warfare, cyber, and C4ISR. - Continue to foster and sustain cooperative relationships with international partners through the use of war gaming, research, and analysis. - Continue to conduct research supporting war games co-sponsored with US Joint Forces Command. - Continue to conduct analytic research on maritime security cooperation planning and systems thinking. - Support advance concepts in war fighting areas of interest, such as critical infrastructure protection. - Continue to conduct advanced research and analysis on determining measures of effectiveness for implementation of Cooperative Strategy for 21st Century Seapower. - Continue to conduct high level policy analytic research and gaming addressing Proliferation Security Initiatives for Office of the Secretary of Defense (OSD). - Continue war gaming, research and analytical support for Navy core capabilities, such as deterrence, maritime security, and sea control. - Continue and expand international War Gaming in support of Maritime Security Cooperation and implementation of Cooperative Strategy for 21st Century Seapower. - Continue to conduct research and develop advanced gaming for Joint/Combined Force Maritime Component Commander Flag Officer Course and Maritime Staff Officers Course. - Continue to develop educational materials for the Maritime Advanced Warfighting School (formerly the Naval Operations Planners Course). - Continued to conduct research and analysis on key operational challenges such as theater anti-submarine Warfare, maritime missile defense, global maritime security, maritime homeland defense, MDA, and sea basing. - Continue to develop advanced war gaming analytical methods and tools. 					
<p>Title: Warfare Analysis and Research</p> <p align="right">Articles:</p>			0.545 0	0.553 0	0.272 0
<p>FY 2010 Accomplishments:</p> <ul style="list-style-type: none"> - Continued to conduct major decision events. Projects were in direct support of war fighting analysis requirements for numbered fleet commanders and were expanded to include particular focus on India and the Indian Ocean. 					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> - Conducted analytical research on key strategic and operational challenges such as maritime ballistic missile defense, proliferation security initiative, global maritime security, maritime situational awareness, maritime operations headquarters, interconnectivity, and multi-service force deployment. - Continued additional evaluation of concepts and decision events in conjunction with war gaming center. - Conducted research targeted at the strategic and policy level decision making within China. - Continued to provide direct support to NWC student research groups and war gaming. - 30-40 major decisions are conducted in support of these efforts. <p>FY 2011 Plans:</p> <ul style="list-style-type: none"> - Continue to conduct major decision events. Projects will be in direct support of war fighting analysis requirements for numbered fleet commanders - Conduct analytical research on key strategic and operational challenges such as maritime ballistic missile defense, proliferation security initiative, global maritime security, maritime situational awareness, maritime operations headquarters, interconnectivity, and multi-service force deployment. - Continue additional evaluation of concepts and decision events in conjunction with war gaming center. - Conduct research targeted at the strategic and policy level decision making within China. - Continued to provide direct support to NWC student research groups and war gaming. - 30-40 major decisions are conducted in support of these efforts. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Continue to conduct major decision events. Projects will be in direct support of war fighting analysis requirements for numbered fleet commanders. - Conduct analytical research on key strategic and operational challenges such as maritime ballistic missile defense, proliferation security initiative, global maritime security, maritime situational awareness, maritime operations headquarters, interconnectivity, and multi-service force deployment. - Continue additional evaluation of concepts and decision events in conjunction with war gaming center. - Conduct research targeted at the strategic and policy level decision making within China. - Continued to provide direct support to NWC student research groups and war gaming. - 30-40 major decisions are conducted in support of these efforts. 				
Title: NWC Student Research Projects		0.110	0.112	0.114
Articles:		0	0	0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<p>Description: Selected, top performing Naval War College (NWC) students to conduct focused research and analysis of current and future strategic and operational challenges and tactical imperatives. These students are organized under the supervision of the Mahan Scholars Program and the Halsey Group Program.</p> <p>FY 2010 Accomplishments:</p> <ul style="list-style-type: none"> - Conducted focused research, analysis and war gaming of current and future strategic/operational challenges and tactical imperatives by the Halsey Groups and Mahan Scholars programs. - Research groups continued to conduct focused research, analysis and free-play war gaming of current and future operational challenges and tactical imperatives arising from regional threats, homeland defense and access denial efforts at the high end of the conflict spectrum in the Pacific, European Command (EUCOM), Central Command (CENTCOM) and Northern Command (NORTHCOM) area of responsibility (AOR). Research and analysis efforts continued in those areas above, and was expanded to include a detailed focus on counter-targeting, operational deception, and countering information denial and missile defense at the theater joint operational level. - Conducted research for Deputy Secretary of Defense (DEPSECDEF) on matters tasked to the college. <p>FY 2011 Plans:</p> <ul style="list-style-type: none"> - Conduct focused research, analysis and war gaming of current and future strategic/operational challenges and tactical imperatives by the Halsey Groups and Mahan Scholars programs. - Research groups continue to conduct focused research, analysis and free-play war gaming of current and future operational challenges and tactical imperatives arising from regional threats, homeland defense and access denial efforts at the high end of the conflict spectrum in the Pacific, EUCOM, CENTCOM and NORTHCOM AOR. Research and analysis efforts continue in those areas above, and will be expanded to include a detailed focus on counter-targeting, operational deception, and countering information denial and missile defense at the theater joint operational level. - Conduct research for DEPSECDEF on matters tasked to the college. <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Conduct focused research, analysis and war gaming of current and future strategic/operational challenges and tactical imperatives by the Halsey Groups and Mahan Scholars programs. - Research groups continue to conduct focused research, analysis and free-play war gaming of current and future operational challenges and tactical imperatives arising from regional threats, homeland defense and access denial efforts at the high end of the conflict spectrum in the Pacific, European Command (EUCOM), Central Command (CENTCOM) and Northern Command (NORTHCOM) area of responsibility (AOR). Research and analysis efforts continue in those areas above, and will be expanded to include a detailed focus on counter-targeting, operational deception, and countering information denial and missile defense at the theater joint operational level. 			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
- Conduct research for Deputy Secretary of Defense (DEPSECDEF) on matters tasked to the college.				
Title: Maritime Headquarters / Maritime Operations Center (MOC) Analysis		0.678	0.687	0.600
		0	0	0
Description: Formerly JFMCC/Worldwide Naval Component Commanders (WNCC). Naval War College (NWC) conducts research and analysis at the operational level of war, including direct support for the Maritime Headquarters (MHQ) with MOC and Combined/Joint Forces Maritime Component Commander (C/JFMCC) activities. These activities include support for concept and doctrine development of numbered fleet war games, exercises, education, research and analysis. NWC is responsible for development of Professional Military Education for Naval Component Commanders and Numbered Fleet Staff personnel, and the Numbered Fleet Commander, including education and research initiatives in support of concept of operations development, training and C/JFMCC advisory and assist team.		Articles:		
FY 2010 Accomplishments: All activities - Researched/Developed educational products to enhance the activities and operational capability of the C/JFMCC including conducting US- and international-based course materials. - Researched/Developed methods to improve direct support for education, exercise development and execution, planning methods/means, assessment processes, and real-time execution of directed tasks. - Researched/Developed specific MOC-related planning and assessment tools for Haiti contingency. - Provided assist team visits in support of analysis and definition of maritime operational processes, including execution battle management, tasking subordinates, operational level planning and operational/effects assessment. - Continued research into the required competencies for Maritime Staff Operations Course (MSOC) for officer and enlisted personnel to successfully operate at the operational level of war. - Researched and developed educational products on maritime matters to better prepare officers and senior enlisted personnel to effectively serve in operational staff assignments in Maritime Operations Centers (MOC) at 3 or 4 star operational headquarters, or represent maritime planning efforts while serving in other service, joint or combined liaison billets. - Developed methods to improve NWC's mission to provide a continuum of Joint Professional Military Education and support operational commanders through enhanced education and training. Included improved methods to familiarize students with operational and Navy theory, concepts, doctrine, organizations, capabilities, responsibilities, functions, planning and execution processes techniques and practices. - Provided subject matter expertise for concept and doctrine development of numbered fleet war games, exercises, education, research and analysis. - Provided research and analysis of senior mentor and executive leadership development within maritime headquarters.				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<p>- Conducted research and analysis in competencies and manpower capabilities at the operational level of war, including direct support for objective manpower resource data and decision making tools at operational level maritime headquarters.</p> <p>FY 2011 Plans: All activities</p> <ul style="list-style-type: none"> - Remain credible, relevant and focused through continued development of MOC processes, doctrine and educational products Maritime Staff Operators Course (MSOC) - Expand research into the required competencies for MSOC for officer and enlisted personnel to successfully operate at the operational level of war. - Actively participate in creation and review of existing and emerging doctrine, and have active involvement in development of evolving operational level issues. - Incorporate more interactive technologies for staff collaboration while conducting distributed operations. - Conduct research in advanced adaptive intelligence, information warfare, and other advanced decision-support tools, including adapting Spiral-developed systems into the MOC classroom environment. - Continue research to improve coalition-related MOC education programs for International Officers and senior officers (continued improvements). Includes support for MAWS and alignment with all other operational level education at NWC and other Service educational facilities. - Examine gaps in education at the OLW; develop COI to close same gaps (Information management/knowledge management, et al). <p>Assist and Assess Team (AAT)</p> <ul style="list-style-type: none"> - Expand research and analysis into integrating lateral and vertical operations of Commander, TENTH Fleet MOC with operations at existing numbered fleet MOCs, USFFC and US Pacific Fleet as well as upward to the new USCYBERCOM and downward to subordinate CTFs and commands. - Conduct research and analysis into potential methods for integration of information operations (to include cyber operations) with traditional kinetic joint fires operations. Cyber operations (network attack, defense, and exploitation) present unique challenges due to the global nature of the domain, the potential effects on other MOCs and the importance of alignment for effective strategic communication. - Conduct research into how Navy units worldwide can support Commander, TENTH Fleet in the execution of the full spectrum of information and cyber operations. - Provide tailored assistance to Commander, TENTH Fleet and Commanders of other MOCs to communicate results of above research and analysis efforts and to strengthen staff knowledge of joint information operations planning, execution, and assessment. <p>Joint/Combined Forces Maritime Commanders Course (J/CFMCC)</p>			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<p>- Continue development/research in national and international implications of maritime commander leadership roles, and development of new flag course curriculum accordingly.</p> <p>-Research in the impacts of transition from contract to government employee support for senior mentors with regards to implementation of CNO's priorities on operational level leadership and flag academics.</p> <p>FY 2012 Plans: All activities</p> <p>- Remain credible, relevant and focused through continued development of MOC processes, doctrine and educational products.</p> <p>MSOC</p> <p>- Continue research as noted, including expansion of understanding of intelligence and net-centric warfare in MOC development and education</p> <p>- Continue research/development on understanding and mitigation of gaps in education at the OLW.</p> <p>- Conduct research to develop COI to close same gaps (Information management/knowledge management, et al)</p> <p>AAT.</p> <p>- Conduct research and analysis into integrating lateral and vertical operations developed to improving the effectiveness of operations at existing numbered fleet MOCs, USFFC and US Pacific Fleet as well as upward to the new USCYBERCOM and downward to subordinate CTFs and commands.</p> <p>- Conduct research and analysis into potential methods for integration of information operations (to include cyber operations) with traditional kinetic joint fires operations. Cyber operations (network attack, defense, and exploitation) present unique challenges due to the global nature of the domain, the potential effects on other MOCs and the importance of alignment for effective strategic communication.</p> <p>J/CFMCC</p> <p>- Continue development/research in national and international implications of maritime commander leadership roles, and development of new flag course curriculum accordingly.</p> <p>- Carry out research on other senior leader development within MOCs, including deputy, chiefs of staff, and other executives responsible for team leadership and decision making.</p> <p>- Conduct research to improve JFMCC integration with component commanders (JFLCC, JFACC, JSOCC).</p>					
Accomplishments/Planned Programs Subtotals			4.464	4.438	3.927

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C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

This project provides research, analysis and war gaming to meet the needs of the Navy. Performance is measured in terms of both the quantity and quality of war games, analysis and the extent to which demand for war games and research products can be accommodated within funding levels. Results of research products and war games are evaluated through customer feedback and the extent to which findings are incorporated into follow-on research and practical applications such as Navy doctrine, operational tactics, and programming decisions made during the Planning, Programming, Budgeting & Execution (PPBE) process.

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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2221.: <i>JT Mission Assessment Studies</i>	28.100	27.963	40.940	-	40.940	25.758	26.270	26.805	27.332	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Navy Assessment Program provides capability-based planning assessment for Joint Capabilities Integration and Development System (JCIDS), conducts analysis to affect war fighting capability trades and enterprise resources, identifies needs, gaps, and overlaps, and assesses alternative solutions to Joint needs. The program supports both the development and use of modeling, simulation and analytically-based warfare and provides business analyses and analytic tools that provide the basis for decision making with respect to concepts of operations (CONOPS), Command, Controls, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems (Information Dominance), warfare systems (Sea Strike, Sea Shield, and Sea Basing) and analytical underpinnings/basis for programmatic decisions of the Navy's top leadership regarding their architectures, force structure, and the Navy's core "organize, train, and equip mission" (the warfare and provider Enterprises). The program provides overarching Planning, Programming, Budgeting and Execution System (PPBES) analyses and guidance for PPBES which provides gap analysis and investment strategy and total obligation authority allocation. It provides independent capability analysis and assists in structuring follow-on Navy analyses. The program coordinates Navy's position for the enhanced planning process and conducts net assessments. It serves as the lead campaign analysis to approve Navy warfare and support requirements. The program supports "A Cooperative Strategy for 21st Century Seapower 21" as modified by the Maritime Strategy which charts a course for the Navy, Coast Guard and Marine Corps to work collectively with each other and international partners to prevent crises from occurring or reacting quickly should one occur to avoid negative impact to the United States. It serves as an independent assessor providing a broad-view perspective across the Navy staff apart from resource sponsors, with an integrated look at both war fighting and war fighting support programs. The program supports the world class modeling efforts to attain a level of modeling and simulation (M&S) capability that is world class and establishes the Navy as a leader in the Department of Defense (DoD) M&S community. It provides Navy alternatives in assessing the implications embedded within resource decisions in a quantified context of costs versus capability versus risk. The program provides independent analytic support to Navy leadership in conjunction with various executive level decision forums. It develops tools and analytical methodologies that assist in evaluating Navy programs and provides technical leadership for the analysis functional area of Naval M&S. Capabilities-Based Assessment (CBA) is the Joint Capabilities Integration and Development System analysis process that includes three phases: Functional Area Analysis (FAA), Functional Needs Analysis (FNA), and Functional Solution Analysis. The results of the CBA are used to develop a joint capabilities document (based on the FAA and FNA) or initial capabilities document (based on the full analysis). CBA funding provides the resource sponsors the means to develop the analytic underpinning required by Chairman of the Joint Chiefs of Staff Instruction 3170.01G to support the determination of Naval warfighting capabilities and force structure needed to support the Joint Requirements Oversight Council/Joint Capabilities Integration and Development System (JCIDS) requirements validation process and to inform Program Objective Memorandum programming decisions.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Navy Standard Scenarios with Warfare and Warfare Support Analyses	1.551	1.582	1.622
Articles:	0	0	0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<p><i>FY 2010 Accomplishments:</i> Developed, updated, and maintained detailed level Navy Standard Scenarios based on Defense Planning Guidance. Developed alternative scenarios in support of Program Objective Memorandum (POM) guidance, Joint Studies, and Navy resource analyses. Developed, updated, and maintained analytic baselines for the Major Combat Operations (MCOs) based on Defense Planning Guidance. Developed a framework and common set of processes to ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, joint, coalition, and threat forces), key assumptions and input data are defined and traceable to government approved/provided source material. Developed Measures of Performance (MOP) and Measures of Effectiveness (MOE) and recommended appropriate modeling/methodology to support analyses. Developed scenarios and operational concepts based on government inputs that were sufficiently detailed for use in naval and joint campaign analyses. At the mission level, scripted operational or tactical situations for use in effectiveness analyses in specific warfare mission areas. Developed details required to execute analysis of designated Defense Planning Scenarios and their respective Multi-Service Force Deployment Plans.</p> <p><i>FY 2011 Plans:</i> Continue to develop, update, and maintain detailed level Navy Standard Scenarios based on Defense Planning Guidance. Develop alternative scenarios in support of Program Objective Memorandum (POM) guidance, Joint Studies, and Navy resource analyses. Develop, update, and maintain analytic baselines for the Major Combat Operations (MCOs) based on Defense Planning Guidance. Develop a framework and common set of processes to ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, joint, coalition, and threat forces), key assumptions and input data are defined and traceable to government approved/provided source material. Develop Measures of Performance (MOP) and Measures of Effectiveness (MOE) and recommended appropriate modeling/methodology to support analyses. Develop scenarios and operational concepts based on government inputs that were sufficiently detailed for use in naval and joint campaign analyses. At the mission level, scripted operational or tactical situations for use in effectiveness analyses in specific warfare mission areas. Develop details required to execute analysis of designated Defense Planning Scenarios and their respective Multi-Service Force Deployment Plans.</p> <p><i>FY 2012 Plans:</i> Continue to develop, update, and maintain detailed level Navy Standard Scenarios based on Defense Planning Guidance. Develop alternative scenarios in support of POM guidance, Joint Studies, and Navy resource analyses. Develop, update, and maintain analytic baselines for the MCOs based on Defense Planning Guidance. Develop a framework and common set of processes to ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, joint, coalition, and threat forces), key assumptions and input data are defined and traceable to government approved/provided source material. Develop MOP and MOE and recommended appropriate modeling/methodology to support analyses. Develop scenarios and operational concepts based on government inputs that were sufficiently detailed for</p>			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
use in naval and joint campaign analyses. At the mission level, scripted operational or tactical situations for use in effectiveness analyses in specific warfare mission areas. Develop details required to execute analysis of designated Defense Planning Scenarios and their respective Multi-Service Force Deployment Plans.				
Title: Capability Based Assessments with Campaign Mission Analyses Analytical and Technical Support		2.922	3.105	3.183
Articles:		0	0	0
FY 2010 Accomplishments: Assessed capability sponsors' products for Navy senior leadership decision forums. Performed collaborative assessment with capability sponsors. Proactively participated in Capability Sponsors' Integrated Processing Teams (IPTs). Presented opposing analytically-based points of view to Navy senior leadership. Provided analytically-based decision recommendations for both war fighting and support areas. Developed investment strategy recommendations and assessments for Program Review and POM. Assessed capability sponsor's products for senior leadership decision forums. Conducted verification, validation and accreditation of warfare, performance, and pricing models. Conducted Overseas Contingency Operation (OCO) Capabilities-Based Assessment (CBA) that provided a rapid and scalable process to utilize a Concept of Operation, developed investment strategy, and a capability roadmap. Conducted Tactical Aircraft Recapitalization alternatives and Theater Ballistic Missile Defense cost capability trade off assessments. Conducted independent assessment of Anti-Submarine Warfare. Conducted weapons safety and sea basing capability assessments. Conducted Intelligence Surveillance Reconnaissance (ISR) and Meteorological and Oceanographic (METOC) assessment to determine the optimal mix of Naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support Major Combat Operations (MCOs), the OCO, and intelligence preparation of the environment for both MCOs and OCO. Performed CBAs to meet the requirements of current and future scenarios, and make strategic decisions within a constrained economic framework. Performed rigorous, time critical naval and joint campaign and mission-level analyses, usually based on modeling and simulation that illuminated complex warfare issues which supported decision-making in the Planning, Programming, Budgeting Executing (PPBE) process. Performed analyses and provided technical and engineering support, including, joint campaign analysis that examined the ability to counter a range of coordinate threat capabilities, high level tradeoffs between service capabilities, or impact of large-scale architecture, mission-level effectiveness analyses that determined system capabilities; conducted analyses of alternative force structures that determined the ability to meet peacetime deployment or steady-state requirements and respond to transition to war and contingency operations. Conducted cost analyses, cost-effectiveness analyses, and analyses of new technologies in support of Sponsor Program Proposal, Navy Program Review and Program Objective Memorandum (POM) or Warfare Capability Plan. Developed innovative analysis techniques that evaluated the effectiveness of operations on the Long War focus on Irregular Warfare and Sea Shaping (influence) activities such as Theater Security Cooperation. Provided rigorous business case assessments of complex issues relating to the war fighting support processes, manpower and personnel, training and education, infrastructure, both afloat and ashore readiness, Naval Medical Program and provider enterprise operations. Performed analyses for accreditation of models,				

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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 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 2221.: <i>JT Mission Assessment Studies</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<p>used estimate cost and performance of performance-based modeled programs such as the Flying Hour Program, ship operations, ship and aircraft maintenance, spares, facilities, and base operation support.</p> <p>FY 2011 Plans: Continue to assess capability sponsors' products for Navy senior leadership decision forums. Perform collaborative assessment with capability sponsors. Proactively participate in Capability Sponsors' Integrated Processing Teams (IPTs). Present opposing analytically-based points of view to Chief of Naval Operations (CNO) and Navy senior leadership. Provide analytically-based decision recommendations to CNO for both war fighting and support areas. Develop CNO investment strategy recommendations and assessments for Program Review and POM. Assess capability sponsor's products for senior leadership decision forums. Conduct verification, validation & accreditation of warfare, performance, and pricing models. Conduct OCO Capabilities-Based Assessment (CBA) that provide a rapid and scalable process to utilize a Concept of Operation (CONOP), develop investment strategy, and a capability roadmap. Conduct Tactical Aircraft Recapitalization alternatives and Theater Ballistic Missile Defense cost capability trade off assessments. Conduct independent assessment of Anti-Submarine Warfare. Conduct weapons safety and sea basing capability assessments. Conduct ISR and METOC assessment to determine the optimal mix of Naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support MCOs, the OCO, and intelligence preparation of the environment for both MCOs and OCO. Perform CBAs to meet the requirements of current and future scenarios, and make strategic decisions within a constrained economic framework. Perform rigorous, time critical naval and joint campaign and mission-level analyses, usually based on modeling and simulation that illuminate complex warfare issues which support decision-making in the Planning, Programming, Budgeting Executing (PPBE) process. Perform analyses and provide technical and engineering support, including, joint campaign analysis that examine the ability to counter a range of coordinate threat capabilities, high level tradeoffs between service capabilities, or impact of large-scale architecture, mission-level effectiveness analyses that determine system capabilities; conduct analyses of alternative (AoA) force structures that determine the ability to meet peacetime deployment or steady-state requirements and respond to transition to war and contingency operations. Conduct cost analyses, cost-effectiveness analyses, and analyses of new technologies in support of Sponsor Program Proposal, Navy Program Objectives Memorandum (POM) or Warfare Capability Plan. Develop innovative analysis techniques that evaluate the effectiveness of operations on the Long War focus on Irregular Warfare and Sea Shaping (influence) activities such as Theater Security Cooperation. Provide rigorous business case assessments of complex issues relating to the war fighting support processes, manpower and personnel, training and education, infrastructure, both afloat and ashore readiness, Naval Medical Program and provider enterprise operations. Perform analyses for accreditation of models, use estimate cost and performance of performance-based modeled programs such as the Flying Hour Program, ship operations, ship and aircraft maintenance, spares, facilities, and base operation support.</p> <p>FY 2012 Plans:</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 2221.: <i>JT Mission Assessment Studies</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
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Continue to assess capability sponsors' products for Navy senior leadership decision forums. Perform collaborative assessment with capability sponsors. Proactively participate in Capability Sponsors' Integrated Processing Teams (IPTs). Present opposing analytically-based points of view to the Chief of Naval Operations (CNO) and Navy senior leadership. Provide analytically-based decision recommendations to CNO for both war fighting and support areas. Develop CNO investment strategy recommendations and assessments for Program Review and POM. Assess capability sponsor's products for senior leadership decision forums. Conduct verification, validation & accreditation of warfare, performance, and pricing models. Conduct Overseas Contingency Operation (OCO) Capabilities-Based Assessments (CBAs) that provide a rapid and scalable process to utilize a Concept of Operation (CONOP), develop investment strategy, and a capability roadmap. Conduct Tactical Aircraft Recapitalization alternatives and Theater Ballistic Missile Defense cost capability trade off assessments. Conduct independent assessment of Anti-Submarine Warfare. Conduct weapons safety and sea basing capability assessments. Conduct Intelligence Surveillance Reconnaissance (ISR) and Meteorological and Oceanographic (METOC) assessment to determine the optimal mix of Naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support Major Combat Operations (MCOs), the OCO, and intelligence preparation of the environment for both MCOs and OCO. Perform CBAs to meet the requirements of current and future scenarios, and make strategic decisions within a constrained economic framework. Perform rigorous, time critical naval and joint campaign and mission-level analyses, usually based on modeling and simulation that illuminate complex warfare issues which support decision-making in the PPBE process. Perform analyses and provide technical and engineering support, including, joint campaign analysis that examine the ability to counter a range of coordinate threat capabilities, high level tradeoffs between service capabilities, or impact of large-scale architecture, mission-level effectiveness analyses that determine system capabilities; conduct analyses of alternative (AoA) force structures that determine the ability to meet peacetime deployment or steady-state requirements and respond to transition to war and contingency operations. Conduct cost analyses, cost-effectiveness analyses, and analyses of new technologies in support of Sponsor Program Proposal, Navy Program Objectives Memorandum (POM) or Warfare Capability Plan. Develop innovative analysis techniques that evaluate the effectiveness of operations on the Long War focus on Irregular Warfare and Sea Shaping (influence) activities such as Theater Security Cooperation. Provide rigorous business case assessments of complex issues relating to the war fighting support processes, manpower and personnel, training and education, infrastructure, both afloat and ashore readiness, Naval Medical Program and provider enterprise operations. Perform analyses for accreditation of models, use estimate cost and performance of performance-based modeled programs such as the Flying Hour Program, ship operations, ship and aircraft maintenance, spares, facilities, and base operation support.

Title: Campaign Analysis-Modeling and Simulation	5.686	5.914	4.946
Articles:	0	0	0

FY 2010 Accomplishments:

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 2221.: <i>JT Mission Assessment Studies</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Developed and maintained common baselines from which campaign excursions and mission-level analyses are executed. Identified, developed, and improved data and modeling. Led Navy's participation in Office of the Secretary of Defense (OSD)/Joint Staff analytic agenda, baseline development, and collection of data. Provided coordination across the Navy. Brokered agreements upon assumptions, Concept of Operations, scenarios, and data. Led campaign analysis . Conducted modeling and simulation support for ongoing OPNAV missile defense analysis requirements.</p> <p>FY 2011 Plans: Continue to develop and maintain common baselines from which campaign excursions and mission-level analyses are executed. Identify, develop, and improve data and modeling. Lead Navy's participation in OSD/Joint Staff analytic agenda, baseline development, and collection of data. Provide coordination across the Navy. Broker agreements upon assumptions, Concept of Operations, scenarios, and data. Lead campaign analysis for OPNAV. Conduct modeling and simulation support for ongoing OPNAV missile defense analysis requirements.</p> <p>FY 2012 Plans: Continue to develop and maintain common baselines from which campaign excursions and mission-level analyses are executed. Lead Navy's participation in OSD/Joint Staff analytic agenda, baseline development, and collection of data. Provide coordination across the Navy. Broker agreements upon assumptions, Concept of Operations, scenarios, and data. Lead campaign analysis for OPNAV. Conduct modeling and simulation support for ongoing OPNAV missile defense analysis requirements.</p>				
<p>Title: OSD/Joint Staff Study Analysis and Assessment with Investment Strategy Development</p> <p align="right">Articles:</p> <p>FY 2010 Accomplishments: Coordinated and led OSD/Navy's Analytic Agenda in Defense Planning Scenario, Multi-Service Force Deployment, Enhanced Planning Process, Strategic Planning Guidance, and participated in Capability Sponsors' Integrated Processing Teams. Provided overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Provided analytically-based decision recommendations to OPNAV for joint war fighting and support areas. Conducted net assessments and provided independent analytic support to Navy leadership in conjunction with various executive level decision forums. Served as the Navy's lead to Joint Requirements Oversight Council, Joint Capabilities Board, and Functional Capabilities Board. Provided the lead requirements and acquisition for OPNAV. Coordinated and led Navy's role in Defense Planning Guidance, Program Decision Memoranda, Quadrennial Defense Review, and Defense Science Board studies. Participated in Office of the Secretary of Defense (OSD) and Joint Staff analysis assessment and provided structure for coordination across the Navy. Coordinated and supported Joint Analytical Model Improvement Program. Developed new analytic techniques for informing resource allocation decision; conducted all campaign and warfare mission-level analyses and developed investment strategy.</p> <p>FY 2011 Plans:</p>		2.251 0	2.126 0	2.179 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 2221.: <i>JT Mission Assessment Studies</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Continue to coordinate and lead OSD/Navy's Analytic Agenda in Defense Planning Scenario, Multi-Service Force Deployment, Enhance Planning Process, Strategic Planning Guidance, and participate in Capability Sponsors' Integrated Processing Teams. Provide overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Provide analytically-based decision recommendations to OPNAV for joint war fighting and support areas. Conduct net assessments and provide independent analytic support to Navy leadership in conjunction with various executive level decision forums. Serve as the Navy's lead to Joint Requirements Oversight Council, Joint Capabilities Board, and Functional Capabilities Board. Provide the lead requirements and acquisition for OPNAV. Coordinate and lead Navy's role in Defense Planning Guidance, Program Decision Memoranda, Quadrennial Defense Review, and Defense Science Board studies. Participate in Office of the Secretary of Defense and Joint Staff analysis assessment and provide structure for coordination across the Navy. Coordinate and support Joint Analytical Model Improvement Program. Develop new analytic techniques for informing resource allocation decision; conduct all campaign and warfare mission-level analyses and develop investment strategy.</p> <p>FY 2012 Plans: Continue to coordinate and lead OSD/Navy's Analytic Agenda in Defense Planning Scenario, Multi-Service Force Deployment, Enhance Planning Process, Strategic Planning Guidance, and participate in Capability Sponsors' Integrated Processing Teams. Provide overarching PPBS analyses and guidance. Provide analytically-based decision recommendations to OPNAV for joint war fighting and support areas. Conduct net assessments and provide independent analytic support to Navy leadership in conjunction with various executive level decision forums. Serve as the Navy's lead to Joint Requirements Oversight Council, Joint Capabilities Board, and Functional Capabilities Board. Provide the lead requirements and acquisition for OPNAV. Coordinate and lead Navy's role in Defense Planning Guidance, Program Decision Memoranda, Quadrennial Defense Review, and Defense Science Board studies. Participate in Office of the Secretary of Defense and Joint Staff analysis assessment and provide structure for coordination across the Navy. Coordinate and support Joint Analytical Model Improvement Program. Develop new analytic techniques for informing resource allocation decision; conduct all campaign and warfare mission-level analyses and develop investment strategy.</p>				
<p>Title: World Class Modeling, Simulation, and Capability Analysis</p> <p align="right">Articles:</p>		8.931 0	8.721 0	4.780 0
<p>FY 2010 Accomplishments: Provided the Navy with concise and innovative Modeling and Simulation (M&S) analyses and assessment to help optimize Navy Programs and investment decisions. Supported next generation research that emphasizes combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasizes the development of pricing performance models that relate investments and manpower to output performance and readiness. Evaluated new models that are able to capture Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance interaction with sea based forces, and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Supported</p>				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 2221.: <i>JT Mission Assessment Studies</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Fleet readiness and logistics Modeling and Simulation (M&S). Conducted verification, validation, and accreditation of select Navy models. Improved the ability to model emerging security challenges and operations concepts (irregular, catastrophic, and disruptive challenges). Developed optimization models that work across multiple warfare areas. Improved the traceability of data through the modeling hierarchy. Refined the linkages between cost and mission performance in performance-modeled acquisition programs. Conducted Joint Mission Warfare M&S in the Sea Strike, Information Dominance Sea Shield, and Sea Basing mission areas. Conducted mission-level warfare M&S of Joint Capability Areas.</p> <p>FY 2011 Plans: Continue to provide the Navy with concise and innovative M&S analyses and assessment to help optimize Navy Programs and investment decisions. Support next generation research that emphasizes combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasizes the development of pricing performance models that relate investments and manpower to output performance and readiness. Evaluate new models that are able to capture Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance interaction with sea based forces, and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Support Fleet readiness and logistics M&S. Conduct verification, validation, and accreditation of select Navy models. Improve the ability to model emerging security challenges and operations concepts (irregular, catastrophic, and disruptive challenges). Develop optimization models that work across multiple warfare areas. Improve the traceability of data through the modeling hierarchy. Refine the linkages between cost and mission performance in performance-modeled acquisition programs. Conduct Joint Mission Warfare M&S in the Sea Strike, Information Dominance Sea Shield, and Sea Basing mission areas. Conduct mission-level warfare M&S of Joint Capability Areas.</p> <p>FY 2012 Plans: Continue to provide the Navy with concise and innovative M&S analyses and assessment to help optimize Navy Programs and investment decisions. Support next generation research that emphasizes combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasizes the development of pricing performance models that relate investments and manpower to output performance and readiness. Evaluate new models that are able to capture Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance interaction with sea based forces, and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Support Fleet readiness and logistics M&S. Improve the traceability of data through the modeling hierarchy. Refine the linkages between cost and mission performance in performance-modeled acquisition programs. Conduct Joint Mission Warfare M&S in the Sea Strike, Information Dominance Sea Shield, and Sea Basing mission areas. Conduct mission-level warfare M&S of Joint Capability Areas.</p>				
Title: JT Mission Assessment Studies		2.291	6.515	4.730
Articles:		0	0	0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 2221.: <i>JT Mission Assessment Studies</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Description: Capabilities-Based Assessment (CBA) - The CBA is the Joint Capabilities Integration and Development System analysis process that includes three phases: the Functional Area Analysis (FAA), the Functional Needs Analysis (FNA), and the Functional Solution Analysis. The results of the CBA are used to develop a joint capabilities document (based on the FAA and FNA) or initial capabilities document (based on the full analysis). CBA funding provides the resource sponsors the means to develop the analytic underpinning required by Chairman of the Joint Chiefs of Staff Instruction 3170.01G to support the determination of Naval war fighting capabilities and force structure needed to support the Joint Requirements Oversight Council/ Joint Capabilities Integration and Development System requirements validation process and to inform Program Objective Memorandum programming decisions.</p> <p>FY 2010 Accomplishments: Capabilities-Based Assessment (CBA) is a process designed to address future war fighting requirements and analysis needs. CBA efforts improved the quality of Analysis of Alternatives generated, complemented the warfare integration task, and increased the capability to respond to questions regarding the generation of requirements to address capability-based assessments.</p> <p>FY 2011 Plans: Continue FY10 CBA efforts. The additional funds in FY11 were required to initiate FY11 CBAs supporting future Naval capability requirements for next-generation shipbuilding, aviation, and weapons systems. Provide analysis support for N8F Resource Sponsor development of Integrated Sponsor Program Proposal supporting Guidance to Develop the Force direction. The additional funding in FY11 will also cover Portfolio Management Decision Support System (PMDSS) implementation and operation costs. PMDSS was funded as part of PE 0605152N Project 2092 previously.</p> <p>FY 2012 Plans: Continue FY11 CBA efforts.</p>				
<p>Title: AOA for ASUW Capability</p> <p align="right">Articles:</p> <p>FY 2010 Accomplishments: Conducted analysis of alternatives for offensive anti-surface warfare capabilities, based on analysis plan and kill chain linkages assessment.</p> <p>FY 2012 Plans: Conduct analysis of alternatives for offensive anti-surface warfare capabilities, based on analysis plan and kill chain linkages assessment.</p>		4.468 0	-	4.500 0
<p>Title: OASUW Pre-Milestone A</p> <p align="right">Articles:</p>		-	-	15.000 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 2221.: <i>JT Mission Assessment Studies</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<i>FY 2012 Plans:</i> The additional funds in FY12 are required to initiate Offensive Anti-Surface Warfare (OASUW) pre-Milestone A requirements to continue material solution analysis to ensure compliance with statutory and regulatory requirements of this pre-Major Defense Acquisition Program effort. Efforts to be performed in support of OASUW requirements include analysis to support development of the Technology Development Document, Capabilities Development Document, and Technical Demonstration documentation.			
Accomplishments/Planned Programs Subtotals	28.100	27.963	40.940

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

The overall goal is to conduct analysis to support the Navy decisions needed to turn strategy and guidance into the fleet we need within acceptable risk. METRIC: Risks are balanced across capability that delivers the right capabilities within the resources available to Navy. Navy Assessment Program supports the development of platform specific studies and Capability-Based Assessments (CBAs), an analytical effort resulting in Functional Area Analysis (FAA), Functional Needs Analysis (FNA), and Functional Solutions Analysis (FSA). Efforts provide added analytical rigor relative to program's maturation under the Joint Capabilities, Integration, and Development System (JCIDS) and support warfare integration initiatives.

Navy Standard Scenarios with Warfare and Warfare Support Analyses: Goal: To ensure that essential elements of warfare analyses, including scenarios, operational concepts, tactics, capabilities of platforms and systems (for Navy, joint, coalition and threat forces), key assumptions and input data are defined and traceable to government approved source material. METRIC: Consistency with other ongoing analyses as directed, develop Measures of Performance (MOPs) and Measures of Effectiveness (MOEs) and recommend appropriate modeling/methodology to support analysis. Models/methodology used reflect study objects, level of fidelity required and time constraints.

Capability Based Assessments with Campaign Mission Analyses Analytical and Technical Support: Goal: To provide analyses and technical and engineering support including, but not limited to, joint campaign analysis that examines the ability to counter a range of coordinated threat capabilities, high level tradeoffs between service capabilities, or impact of large-scale architecture, force structure of modernization decision; mission-level effectiveness analyses to determine system capabilities; analyses of alternative (AoA) force structures to determine ability to meet peacetime deployment or steady-state requirements and respond to transition to war and contingency operations; cost-effectiveness and analyses; Acquisition Category Program Office and Systems Command (SYSCOM) assessments; and analyses of new technologies. METRIC: Develop analysis plans; determine proposed alternatives for analysis; and research performance data on current and future threats, coalition and own force systems; perform technology investigations and forecasts; develop or obtain cost data for current or planned systems; develop and use Cost Estimating Relationships (CERS) to determine cost for conceptual or future systems for which no cost data is available; identify analysis assumptions, limitations and uncertainties; use established models or develop new models or methodologies to perform analyses; and interpret and analyze results.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 2221.: <i>JT Mission Assessment Studies</i>
<p>Campaign Analysis-Modeling and Simulation: Goal: Develop and maintain a standard set of models for use in warfare analyses and analyses performed to support Planning Strategy that work at the campaign, mission, and engagement levels. METRIC: A combination of model design statements, model study reports, system specifications, updated model reports, model/database documents, model verification and validation plans, code and Plan of Action and Milestones (POA&M) reports developed or updated that encompass all aspects of Sea Power 21 to include at a minimum air, land, sea, and Command, Control, Communications, Computers, and Intelligence Surveillance and Reconnaissance (C4ISR).</p> <p>Joint Assessments and Integration and Investment Strategy Development: Goal: Conduct assessments to determine shortfalls and redundancies in existing or planned operational or support capabilities; identify key issues including deficiencies in war fighting capability; determine priorities for needed capabilities; assesses affordability of high payoff systems and technologies; assess effectiveness and affordability of alternative force structures; and formulate investment strategies. Continue development and refinement of Navy program planning to determine the war fighting wholeness and cost effectiveness of alternative Navy strategies. METRIC: Identify shortfalls and redundancies in existing or planned capabilities. Determine the impact of variations in warfare systems and architectures in threat, U.S. and combined forces and strategies. Provide engineering and analytic support for the assessment and transition of technology for use in the Investment Strategy.</p> <p>World Class Modeling (WCM), Simulation, and Capability Analysis: Goal: Development of new models or model upgrades to meet requirements identified by the WCM requirements process that support the Program Objective Memorandum (POM) decision-making process, with the goal of creating a state-of-the art set of models for use in warfare and warfare support analyses. METRIC: Develop model design documents, model study reports, system specifications, updated model reports, model documentation, model verification and validation plans, code, Plan of Action and Milestones (POA&M) reports, and technical reports.</p> <p>The May 2007 revision of the Joint Chiefs of Staff's Joint Capabilities Integration and Development System instruction (CJCSI 3170.01F) requires a CBA to assess new requirements. A CBA instruction has been developed by the CNO's warfare integration office that prescribes a procedure and structure to this warfighting requirements generation process (JCIDS). A CBA is required to address and validate capability shortfalls or gaps as defined by combatant commanders. It is an analytical process that includes three phases: the Functional Area Analysis, the Functional Needs Analysis, and the Functional Solution Analysis. This process is designed to address future warfighting requirements and analysis needs and improve the quality of Analysis of Alternatives. CBA supports Navy programming decisions and provides the means to develop the analytic underpinning to support the determination of Naval capabilities and force structure recapitalization investments required to fulfill the Maritime Strategy.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 3025: <i>Mid-Range Financial Improvement Plans</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3025: <i>Mid-Range Financial Improvement Plans</i>	1.532	1.436	1.244	-	1.244	1.462	1.503	1.544	1.582	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

One of DoD's and Navy's priority goals is to gain a clean and auditable financial statement. The Office of the Secretary of Defense (OSD) Comptroller, in his 8 August 2003 memorandum, directed the Military Departments and Defense Agencies, in coordination with the Defense Finance and Accounting Service (DFAS), to prepare a comprehensive mid-range financial improvement plan to identify measurable steps to ensure each material line is auditable, and ensure all major deficiencies are resolved.

This project supports the Research, Development, Test and Evaluation, Navy (RDT&E,N) portion of the larger DoD and Navy-wide effort to implement the Financial Improvement Plan (FIP). Corrective actions required to resolve known deficiencies and determine resource requirements (people and systems) are being identified.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Mid-Range Financial Improvement Plans	1.532	1.436	1.244
Articles:	0	0	0
FY 2010 Accomplishments:			
- Continued performing obligation validations ensuring accuracy.			
- Continued eliminating problem disbursements older than 120 days, narrowing to 60 days, and potentially narrowing even further.			
- Continued to be proactive in executing the first and second phases (discovery and correction) of the Office of Management and Budget Circular No. A-123 process which requires Federal agencies take responsibility for conducting a rigorous assessment of internal controls over financial reporting.			
- Initiated and submitted the assertion for the following three segments: Financial Reporting, Civilian Pay and Reimbursable Work Orders.			
- Initiated the Statement of Budgetary Resources (SBR) assertion.			
FY 2011 Plans:			
Continue all efforts of FY10.			
FY 2012 Plans:			
Continue all efforts of FY11.			
Accomplishments/Planned Programs Subtotals	1.532	1.436	1.244

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Financial records are compliant in accordance with the Chief financial Officers Act.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 3039: <i>CHENG</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3039: <i>CHENG</i>	18.074	19.219	16.566	-	16.566	19.274	19.668	20.122	20.489	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Develops and implements architecture-based systems engineering processes, methods and tools that assure integrated and interoperable systems are delivered to the fleet. This project provides the mission-oriented technical basis for implementing capability-based acquisition management within the Navy to engineer and field Navy and Marine Corps combat systems, weapon systems, and command, control, communications, computers and intelligence (C4I) programs that must operate as family-of-systems (FoS) or system-of-systems (SoS). The focus of this project is on identifying the functions, relationships, and connections between systems at both the force and unit level and across warfare mission areas, and encompasses three key elements: Systems Engineering to provide the framework for making engineering decisions by war fighting capability at the FoS/SoS level and supports consistent engineering and investment decision-making across Navy and Marine Corps programs within capability-based acquisition portfolios. Naval Collaborative Engineering Environment development and implementation as a DON enterprise resource for Naval integration and interoperability information to enable collaboration and decision support among Fleet organizations, Program Executive Offices, Program Managers, Systems Commands, prime contractors, Resource/Warfare Sponsors and Comptroller organizations. Standards, Policies and Guidelines engineering and technical staff to implement DoN, Office of the Secretary of Defense (OSD) and Joint integration and interoperability and Anti-Tamper initiatives.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Standards, Policy, and Guidelines	4.844	5.150	4.487
Articles:	0	0	0
FY 2010 Accomplishments: Continued alignment of standards, policy, and guidelines across the Naval Enterprise and with OSD and Joint Service organizations - added alignment with law. Investigated Aggregation of Systems and the application of Systems Engineering Processes and Practices to them across the Naval Enterprise, particularly those involved in Information Assurance (IA) and Integration and Interoperability. Continued Information Strategic Plan (ISP) and NR-KPP Implementation Plans in support of Integration and Interoperability management. Established Net Ready Key Performance Parameter (NR-KPP) processes and practices to support the implementation of net-centric requirements for clarifying and resolving policy and guidance issues. Continued representing ASN RD&A in Systems Engineering and related forums, such as Assistant Secretary of Defense(ASD) NII Interoperability, Information Technology, Architecture, et al sessions, Joint policy sessions, and OSD ATL policy sessions. Continued roadmap for acquisition programs on how policies and programs fit together and added investigation and resolution of policy issues, particularly for NR-KPP, ISP, and Information Assurance.			
FY 2011 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 3039: <i>CHENG</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Continue all efforts of FY10. FY 2012 Plans: Continue all efforts of FY11.				
Title: Naval Collaborative Engineering Environment (NCEE) FY 2010 Accomplishments: - Successfully transitioned NCEE, a CHSENG initiated environment, to Naval Systems Engineering Resource Center (NSERC), a collaborative system engineering environment that provides support across System Commands (SYSCOMs) and their associated program offices. Leadership of the environment is also transitioned to SESG. CCB instituted to guide growth, changes, documentation, risk analysis, and configuration management. - Continued to grow NSERC from its IOC deployment in August 2008 to the current capabilities that support 14,000+ users on collaborative capabilities and approximately 3,000 users on system engineering tools usage. - Continued to support programs in effectively applying system engineering processes and tools through training, consulting sessions, and availability of NSERC. Developed computer based training for NSERC Introduction, DOL Online Opportunities Recruitment System (DOORs), and Risk Exchange. Enabled program usage of Systems Engineering Technical Reviews according to new Systems Engineering Stakeholders Group policy. - Coordinated with Systems Command Architecture Development (SADIE) and Integration Environment to establish the alignment between system level architecture, developed by SYSCOM program offices, and enterprise level architecture. . - Working closely with Electronic Data System (EDS) and Defense Information Systems Agency (DISA) resolved a bandwidth problem that greatly improved accessibility and timeliness for NSERC customers - Coordinated closely with DON CIO and SYSCOM CIO to support capabilities alignment policies including portal, infrastructure, and applications reduction. - Successfully deployed the initial prototype of the Probability of Program Success tool on ASN RDA Dashboard - Coordinated across acquisition and operational offices to established full scope of requirements for PoPS deployment on ASN RDA Dashboard. - Fully transitioned Naval Architecture Repository System (NARS) and Chief Engineer Architecture Tool for Engineering Review (CHEATER) to CHSENG TD. FY 2011 Plans: Continue all efforts of FY10 FY 2012 Plans:		2.640 0	2.848 0	2.482 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 3039: <i>CHENG</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Continue all efforts of FY11				
Title: Systems Engineering				
		Articles:		
<p>FY 2010 Accomplishments: Continued to authenticate Naval Power 21 capabilities-based Integrated Architecture product assessments; develop the Naval Architecture Repository System (NARS) and technical views to support decision-making.</p> <ul style="list-style-type: none"> - Continued Software Acquisition Process Improvement (Section 804) pilot project implementation. - Continued System-of-Systems (SOS) Systems Engineering (SE) Guidebook Volumes I and II to address specialty engineering functions to include Human Systems Integration, Safety, etc. - Continued SOS SE Integrated Product Team (IPTs) for Battlespace, Mine Warfare and Missile Defense Agency to support CNO priority capability needs. - Continued acquisition milestone review documentation to assess Integration and Interoperability in Information Support Plans, Systems Engineering Plans and Risk Assessments and incorporate results in the ASN Research, Development and Acquisition Dashboard. - Continued NP 21 Integration and Interoperability Management Plan (I&IMP) implementation. - Developed and promulgate integrated architecture roadmap with Mission Capability Package System View 8 and Capability Evolution Document. - Continued mission and capability technical warrant holder roles and responsibilities. <p>FY 2011 Plans: Continue all efforts of FY10.</p> <p>FY 2012 Plans: Continue all efforts of FY11.</p>		10.590 0	11.221 0	9.597 0
Accomplishments/Planned Programs Subtotals		18.074	19.219	16.566
C. Other Program Funding Summary (\$ in Millions)				
N/A				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 3039: <i>CHENG</i>

E. Performance Metrics

Standards, Policy, and Guidelines: - Alignment of SPGs across the Naval Enterprise and with OSD and Joint organizations will support standard acquisition implementation and improve compatibility and interoperability thereby lowering development and maintenance costs across programs

- Aggregating systems for the purpose of conducting certification and accreditation and consolidating mandatory documentation for aggregations versus individual systems will optimize (cost tradeoffs and focus on high priority issues) certifications, reduce paperwork and associated costs, and put attention on systems engineering, IA, and ISPs for systems in their aggregated operational state vice just the individual system development state. Document costs for major programs are \$1 to \$3.5 Million per system. An aggregation may include 15 or more systems with four or more being major systems. Aggregation presents a high potential for Return on Investment.
- NR-KPP processes will clarify requirements and capabilities (including their metrics) that acquisition programs need to develop systems. This clarification will eliminate guesses in terms of operational needs, thereby reducing the risk of program failure and reducing program and life-cycle costs.

Naval Collaborative Engineering Environment (NCEE): Number of customers/ users.
Percentage of time the tool is available.
Number of tools integrated into the system.

Systems Engineering:
Reviews and comment on all ACAT I system engineering plans presented to ASN (RDA) within 30 days of receipt to provide system engineering and system of system system engineering guidance to the Acquisition Program Manager.
Review 80% of the MDAP Gate reviews held in FY10 to provide software acquisition process improvement guidance, system of systems engineering guidance and integration and interoperability management guidance to the Acquisition Program Managers.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 3330: <i>Naval Research Laboratory (NRL) Facilities Modernization</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3330: <i>Naval Research Laboratory (NRL) Facilities Modernization</i>	-	-	2.118	-	2.118	2.438	2.438	2.438	15.954	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

This is a new project starting FY12.

A. Mission Description and Budget Item Justification

This program has been established to provide a systematic and planned approach to improve vital in-house science and technology (S&T) laboratory facilities which are reaching or have reached critical stages of deterioration. The program includes restoration and modernization (R&M) initiatives for about 350,000 net square feet, where the average age of the buildings is 67 years old.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: NRL Facilities Modernization	-	-	2.118
Articles:			0
Description: Critical Science and Technology research cannot be sustained or succeed in deteriorated facilities. World class research can only be accomplished in facilities that are at a minimum "adequate", but preferably "state-of-the-art." Due to their advanced age and deterioration, funds are planned to restore/modernize various laboratory facilities at the Naval Research Laboratory.			
FY 2012 Plans: Initial year of a concerted effort to modernize electronics science and technology laboratories, equipment, and specialized facilities. Existing NRL buildings will be renovated in order to relocate critical electronics S&T equipment and specialized laboratories from space that has reached a significant level of maintenance and operational disruption and failure due to advanced age (45 year old building) and inability to sustain and modernize with scientists and researchers in place.			
Accomplishments/Planned Programs Subtotals	-	-	2.118

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

None

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605853N: <i>Management, Technical & Intl Supt</i>	PROJECT 3330: <i>Naval Research Laboratory (NRL) Facilities Modernization</i>

E. Performance Metrics

Restoration and modernization of the laboratory facilities will begin in a phased approach until completion.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0605856N: <i>Strategic Technical Support</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	3.570	3.451	3.277	-	3.277	3.316	3.392	3.446	3.495	Continuing	Continuing
0128: <i>Mgmt/Tech Supt Strategic</i>	1.308	1.293	1.242	-	1.242	1.284	1.307	1.336	1.361	Continuing	Continuing
1038: <i>Acoustic & Non-Acoustic Analysis Supt</i>	2.262	2.158	2.035	-	2.035	2.032	2.085	2.110	2.134	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element supports technical studies and analyses as directed by the Director for Submarine Warfare to support major policy and procurement decisions. This program is divided into two elements to support decision making in the areas of submarine and antisubmarine warfare and undersea surveillance.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	3.618	3.451	3.512	-	3.512
Current President's Budget	3.570	3.451	3.277	-	3.277
Total Adjustments	-0.048	-	-0.235	-	-0.235
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.048	-			
• Program Adjustments	-	-	-0.217	-	-0.217
• Rate/Misc Adjustments	-	-	-0.018	-	-0.018

Change Summary Explanation

Technical: N/A

Schedule: N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE				PROJECT				
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>			PE 0605856N: <i>Strategic Technical Support</i>				0128: <i>Mgmt/Tech Supt Strategic</i>				
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0128: <i>Mgmt/Tech Supt Strategic</i>	1.308	1.293	1.242	-	1.242	1.284	1.307	1.336	1.361	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 provides analytical support to the Director, Submarine Warfare Division as a basis for major policy, planning and acquisition program decisions. It supports the development of the Submarine Force strategic vision to guide research and development investment strategy and future planning. Additionally, this line supports studies in the area of submarine and undersea surveillance missions, force structure, payloads and sensors and force employment.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: MANAGEMENT AND TECHNICAL SUPPORT, STRATEGIC	1.308	1.293	1.242
Articles:	0	0	0
FY 2010 Accomplishments:			
- Continued to examine specific applications for submarine mine countermeasures and develop a strategy for ensuring submarine access to contested areas of the world.			
- Continued to assess the strategic deterrence (conventional and nuclear) force structure, security, and capability in the Navy.			
- Continued to perform an in-depth review of undersea warfare research and development requirements, past and present, and propose an investment strategy to maximize future capabilities.			
- Continued to assess implications of current and developing technologies on undersea warfare in both near and far term systems and develop strategic concepts to guide future acquisitions through partnership with the Naval Postgraduate School.			
- Continued to assess the submarine forces capabilities in view of emerging technologies and changes in joint and naval strategies. This will be used to develop capability based ideas and concepts to guide research and development and science and technology efforts.			
FY 2011 Plans:			
- Continue all efforts of FY10.			
FY 2012 Plans:			
- Continue all efforts of FY11.			
Accomplishments/Planned Programs Subtotals	1.308	1.293	1.242

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605856N: <i>Strategic Technical Support</i>	PROJECT 0128: <i>Mgmt/Tech Supt Strategic</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

This project supports studies in the area of undersea surveillance missions, sensor system, payloads, force employment, communications, acoustic performance prediction systems, environmental and medical effects of acoustics systems including installations/removals, operational security and future threat analysis. Project success is measured through analytical results and constant interaction with the contractors that enable the Director for Submarine Warfare to make decisions effectively.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605856N: <i>Strategic Technical Support</i>	PROJECT 1038: <i>Acoustic & Non-Acoustic Analysis Supt</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1038: <i>Acoustic & Non-Acoustic Analysis Supt</i>	2.262	2.158	2.035	-	2.035	2.032	2.085	2.110	2.134	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 provides analytical support to the Director, Submarine Warfare Division and the Integrated Undersea Surveillance System (IUSS) Branch Head as a basis for major policy, planning, and acquisition program decisions. It supports studies in the area of undersea surveillance missions, sensor system, communications, acoustic performance prediction systems, environmental and medical effects of acoustic systems including installations/removals, operational security, and future threat analysis. Supports synthetic mission lay down simulations for IUSS strategic planning and resource allocation. Continues development/documentation of architecture for future undersea surveillance capabilities. Supports studies to determine long-term impact of IUSS active sensors on marine animals and development of SURTASS, LFA, and the Supplemental Environmental Impact Statement (EIS).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: ACOUSTIC AND NON-ACOUSTIC ANALYSIS SUPPORT	2.262	2.158	2.035
Articles:	0	0	0
FY 2010 Accomplishments: - Continued environmental compliance requirements and actions pertinent to Compact Low Frequency Active (CLFA) at-sea testing, training and operations. - Continued the SURTASS Engineering Measurements Program (SURTASS EMP) to provide for post-mission engineering analysis of SURTASS acoustic data. - Continued environmental compliance support for issuance of annual LOA under the MMPA and required quarterly reporting for SURTASS LFA vessels. - Continued analyses to estimate the long-term effects of SURTASS LFA on marine mammals. - Continued monitoring of undersea technology for application for future undersea surveillance capabilities.			
FY 2011 Plans: - Continue all efforts of FY10.			
FY 2012 Plans: - Continue all efforts of FY11.			
Accomplishments/Planned Programs Subtotals	2.262	2.158	2.035

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605856N: <i>Strategic Technical Support</i>	PROJECT 1038: <i>Acoustic & Non-Acoustic Analysis Supt</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

This project supports studies in the area of undersea surveillance missions, sensor systems, acoustic performance prediction systems, environmental and medical effects of acoustics systems, and future threat analysis. In addition, it provides research and reports necessary to support Surveillance Towed Array Sonar Systems (SURTASS) Low Frequency Active (LFA) sonar compliance with Federal, State and Local environmental laws required for continued SURTASS LFA operations, analysis of undersea technology for application for future undersea surveillance capabilities, and assessment of current and future Integrated Undersea Surveillance System (IUSS) warfare areas and potential allied Navy contributions. To this goal, research is conducted by educational and research institutions renown for their expertise in the area, and by marine mammal biologists with extensive background in specific areas of underwater acoustics. This approach is deemed the most cost effective and efficient course of action for the Navy.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0605861N: <i>RDT&E Science & Tech Mgmt</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	70.950	72.094	73.917	-	73.917	68.389	69.712	71.018	72.358	Continuing	Continuing
0135: <i>ONR Science & Technology Mgmt</i>	68.867	66.603	66.712	-	66.712	66.078	67.341	68.592	69.889	Continuing	Continuing
2353: <i>DFAS Billings</i>	2.083	3.159	2.549	-	2.549	2.311	2.371	2.426	2.469	Continuing	Continuing
3234: <i>Office of Naval Research - N-ERP</i>	-	2.332	4.656	-	4.656	-	-	-	-	0.000	6.988

A. Mission Description and Budget Item Justification

This program element (PE) covers Office of Naval Research (ONR) corporate expenses including salaries, utilities, printing, supplies, materials, Information Technology (IT), general support equipment and other day-to-day logistical costs. The vast majority of these items represent fixed costs associated with Scientists and Engineers supporting the Navy's Science and Technology (S&T) Programs.

The Defense Finance and Accounting Service (DFAS) Billings project (2353) funds accounting services provided to ONR and Navy Research and Development (R&D) activities.

The Office of Naval Research Navy ERP project 3234 provides funding to support site implementation costs for ONR transition to Navy's Enterprise Resource Planning (ERP).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
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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 0605861N: <i>RDT&E Science & Tech Mgmt</i>
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B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	70.648	72.094	75.406	-	75.406
Current President's Budget	70.950	72.094	73.917	-	73.917
Total Adjustments	0.302	-	-1.489	-	-1.489
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.304	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	-0.025	-	-0.025
• Rate/Misc Adjustments	-	-	-1.464	-	-1.464
• Congressional General Reductions Adjustments	-0.002	-	-	-	-

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0605861N: <i>RDT&E Science & Tech Mgmt</i>				PROJECT 0135: <i>ONR Science & Technology Mgmt</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0135: <i>ONR Science & Technology Mgmt</i>	68.867	66.603	66.712	-	66.712	66.078	67.341	68.592	69.889	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 supports ONR leadership, management and direction for the Naval S&T program. This project funds ONR Corporate salaries, utilities, supplies, and other fixed costs at ONR Headquarters and field offices. ONR sponsors scientific advances, which lead to Future Naval Capabilities (FNC's), supporting the Fleet's ability to operate from a position of technological superiority. Functions performed include (1) scientific and technical direction of the nationwide 6.1 basic research program with colleges, universities, non-profit organizations and Naval Laboratories and Warfare Centers; (2) scientific and technical direction of the 6.2 applied research program through the Naval R&D laboratories and Warfare Centers and industry; (3) scientific and technical direction of the Naval 6.3 advanced technology development program through the Navy's R&D laboratories, Warfare Centers and industry; (4) management, resource formulation, program assessment, and contract negotiation/administration of the Navy basic research, applied research and advanced technology development program; and (5) coordination of the Navy's Technology Base program within the context of total DoD/Government (e.g., National Science Foundation, National Academy of Sciences) R&D initiatives in order to maximize scientific advances. This project also supports ONR management and direction for the following Navy-wide programs: Small Business Innovation Research, Naval Research Advisory Committee, Navy Patent Program, Historically Black Colleges and Universities/Minority Institutions Program, Navy Manufacturing Technology Program and the Ballistic Missile Submarine Nuclear (SSBN) Security Technology Program. In addition, this project supports ONR's Navy-wide responsibilities in the negotiation and establishment of indirect cost rates for DoD-assigned universities and performance of contract administration for all DoD contracts/grants at all colleges and universities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: S&T MANAGEMENT SUPPORT	68.867	66.603	66.712
Articles:	0	0	0
Description: This project provides for all basic costs and support of ONR Headquarters and its field activities in support of the entire Navy S&T program. Almost all the funds in this project are fixed costs, such as salaries, and communications. Specifically, it pays the salaries of Scientific and Engineering and corporate business personnel who direct the execution of the Navy's basic research, applied research, and advanced technology development programs at the nation's universities/colleges, Navy laboratories, Warfare Centers, and private industry.			
FY 2010 Accomplishments: -This project provided for all basic costs and support of ONR Headquarters and its field activities in support of the entire Navy S&T program. Almost all the funds in this project are fixed costs, such as salaries, and communications. Specifically, it pays the salaries of Scientific and Engineering and corporate business personnel who direct the execution of the Navy's basic research,			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605861N: <i>RDT&E Science & Tech Mgmt</i>	PROJECT 0135: <i>ONR Science & Technology Mgmt</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
applied research, and advanced technology development programs at the nation's universities/colleges, Navy laboratories, Warfare Centers, and private industry. <i>FY 2011 Plans:</i> - Continue all efforts of FY 2010. <i>FY 2012 Plans:</i> - Continue all efforts of FY 2011.			
Accomplishments/Planned Programs Subtotals	68.867	66.603	66.712

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

This PE funds operating costs for ONR's mission. Program performance is measured by attaining financial benchmarks for planned obligations vs. actual obligations and planned expenditures vs. actual expenditures.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605861N: <i>RDT&E Science & Tech Mgmt</i>	PROJECT 2353: <i>DFAS Billings</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2353: <i>DFAS Billings</i>	2.083	3.159	2.549	-	2.549	2.311	2.371	2.426	2.469	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 provides funding for accounting services provided to the Office of Naval Research and other Navy research and development activities by the Defense Finance and Accounting Service (DFAS).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: TRANSACTIONS PROCESSED IN SUPPORT OF DON R&D	2.083	3.159	2.549
Articles:	0	0	0
Description: This project funds the DFAS bill for transactions processed in support of Department of the Navy R&D activities. Specific services include payroll, transportation, commercial invoices, travel, maintenance of trial balances, associated accounting and reporting.			
FY 2010 Accomplishments: This project funded the DFAS bill for transactions processed in support of Department of the Navy R&D activities. Specific services include payroll, transportation, commercial invoices, travel, maintenance of trial balances, associated accounting and reporting.			
FY 2011 Plans: - Continue all efforts of FY 2010.			
FY 2012 Plans: - Continue all efforts of FY 2011.			
Accomplishments/Planned Programs Subtotals	2.083	3.159	2.549

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605861N: <i>RDT&E Science & Tech Mgmt</i>	PROJECT 2353: <i>DFAS Billings</i>

E. Performance Metrics

This PE funds operating costs for ONR's mission. Program performance is measured by attaining financial benchmarks for planned obligations vs. actual obligations and planned expenditures vs. actual expenditures.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605861N: <i>RDT&E Science & Tech Mgmt</i>	PROJECT 3234: <i>Office of Naval Research - N-ERP</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3234: <i>Office of Naval Research - N-ERP</i>	-	2.332	4.656	-	4.656	-	-	-	-	0.000	6.988
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This project provides funding to support the site implementation costs for the Office of Naval Research transition to Navy's Enterprise Resource Planning (ERP) and to administratively track this continuing effort. Increase in funding is due to the required accelerated efforts to assure successful transition into N-ERP scheduled for 01 OCT 2012.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: OFFICE OF NAVAL RESEARCH NAVY ERP	-	2.332	4.656
Articles:		0	0
FY 2011 Plans: - This project is to fund expenses associated with ERP implementation at ONR.			
FY 2012 Plans: - Continue all efforts of FY 2011.			
Accomplishments/Planned Programs Subtotals	-	2.332	4.656

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

This PE funds operating costs for ONR's mission. Program performance is measured by attaining financial benchmarks for planned obligations vs. actual obligations and planned expenditures vs. actual expenditures.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0605863N: <i>RDT&E Ship & Aircraft Support</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	168.428	95.332	136.531	-	136.531	104.620	158.130	163.980	102.348	Continuing	Continuing
0568: <i>RDT&E Acft Flt Hours</i>	33.558	33.854	35.831	-	35.831	35.686	36.484	37.213	37.503	Continuing	Continuing
0569: <i>RDT&E Acft Supt</i>	35.619	33.003	40.662	-	40.662	40.948	41.547	42.127	42.334	Continuing	Continuing
2924: <i>SDTS</i>	8.760	8.543	21.698	-	21.698	8.382	8.233	8.316	8.387	Continuing	Continuing
3206: <i>T&E Enterprise</i>	90.491	19.932	38.340	-	38.340	19.604	71.866	76.324	14.124	Continuing	Continuing

A. Mission Description and Budget Item Justification

This continuing program provides support for ships and aircraft required to accommodate Research, Development, Test and Evaluation (RDT&E) of new systems. The RDT&E ship and aircraft inventory is required to adequately test new and improved weapon systems, stay current with threats, and increase warfighting capability of the fleet. The program provides integrated logistics support for aircraft at selected field activities; provides depot-level rework of aircraft, engines, and components for the Navy inventory of RDT&E aircraft; and provides support for ships and aircraft bailed to contractors for Navy RDT&E projects. Costs covered under this element include aircrew training and proficiency, fuel, supplies, equipment, repair, Aviation Depot Level Repairables, overhaul of ships and aircraft, as well as organizational, intermediate, and depot maintenance of ships and aircraft in the Navy RDT&E inventory.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	192.551	95.332	139.491	-	139.491
Current President's Budget	168.428	95.332	136.531	-	136.531
Total Adjustments	-24.123	-	-2.960	-	-2.960
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-20.762	-			
• SBIR/STTR Transfer	-4.817	-			
• Program Adjustments	1.461	-	-3.130	-	-3.130
• Rate/Misc Adjustments	-	-	0.170	-	0.170
• Congressional General Reductions Adjustments	-0.005	-	-	-	-

Change Summary Explanation

Technical: Not applicable.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*
BA 6: *RDT&E Management Support*

R-1 ITEM NOMENCLATURE

PE 0605863N: *RDT&E Ship & Aircraft Support*

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605863N: <i>RDT&E Ship & Aircraft Support</i>	PROJECT 0568: <i>RDT&E Acft Flt Hours</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0568: <i>RDT&E Acft Flt Hours</i>	33.558	33.854	35.831	-	35.831	35.686	36.484	37.213	37.503	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

RDT&E Aircraft Flight Hours. This non-acquisition project supports direct flight hour costs, including organizational and intermediate level maintenance, as well as associated consumables, including petroleum, oil, and lubricants. These flight hours are used for post-maintenance test flights, aircrew training, and the accomplishment of pilot proficiency requirements (approximately 3 hours per pilot per month), in support of Research and Development programs at four Naval Air Systems Command/Naval Surface Warfare Center/Office of Naval Research flight activities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: RDT&E Acft Flt Hours	33.558	33.854	35.831
Articles:	0	0	0
FY 2010 Accomplishments: Continued to provide in the plan organizational and intermediate-level maintenance, supply and petroleum, oil and lubricants in support of RDT&E aircraft operations.			
FY 2011 Plans: Continue to provide in the plan organizational and intermediate-level maintenance, supply and petroleum, oil and lubricants in support of RDT&E aircraft operations.			
FY 2012 Plans: Continue to provide in the plan organizational and intermediate-level maintenance, supply and petroleum, oil and lubricants in support of RDT&E aircraft operations.			
Accomplishments/Planned Programs Subtotals	33.558	33.854	35.831

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not Applicable

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605863N: <i>RDT&E Ship & Aircraft Support</i>	PROJECT 0568: <i>RDT&E Acft Flt Hours</i>

E. Performance Metrics

This RDT&E Aircraft program supports approximately 3 hours per pilot per month of post-maintenance test flights, aircrew training and the accomplishment of pilot proficiency requirements.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605863N: <i>RDT&E Ship & Aircraft Support</i>	PROJECT 0569: <i>RDT&E Acft Supt</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0569: <i>RDT&E Acft Supt</i>	35.619	33.003	40.662	-	40.662	40.948	41.547	42.127	42.334	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Research, Development, Test and Evaluation (RDT&E) Aircraft Support. This continuing project funds costs associated with RDT&E fixed and rotary wing aircraft which accommodate test and evaluation of aircraft/weapon systems. Testing aboard these platforms reduces the number of fleet units required to support RDT&E efforts. Included in these costs are Aviation Depot-Level Repairables (AVDLR), which are spare and replacement aircraft parts and components to support overhead maintenance related flight operations, aircrew training, and proficiency flight hours. This project also funds airframe Standard Depot Level Maintenance (SDLM), the Integrated Maintenance Concept (IMC) and Phased Depot Maintenance (PDM), in-service repairs, emergency repairs, and engine repairs, as well as aircraft material condition and field inspections. Additionally, it funds Individual Material Readiness List (IMRL) tools and support equipment, and other systems for application to and compatibility with RDT&E requirements.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
<p>Title: Aircraft/Engine Maintenance and AVDLR/IMRL Support</p> <p style="text-align: right;">Articles:</p> <p>FY 2010 Accomplishments: Continued in plan the transition from Aircraft Service Period Adjustment(ASPA)/SDLM to the IMC/PDM program for depot maintenance requirements, while sustaining the following programs: AVDLR/IMRL, engine repairs, support of aircraft in the RDT&E inventory. Continued operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities.</p> <p>FY 2011 Plans: Continue in plan the transition from ASPA/SDLM to the IMC/PDM program for depot maintenance requirements, while sustaining the following programs: AVDLR/IMRL, engine repairs, support of aircraft in the RDT&E inventory. Continue operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities.</p> <p>FY 2012 Plans: Continue in plan the transition from ASPA/SDLM to the IMC/PDM program for depot maintenance requirements, while sustaining the following programs: AVDLR/IMRL, engine repairs, support of aircraft in the RDT&E inventory. Continue operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities.</p>	<p>34.019</p> <p>0</p>	<p>31.380</p> <p>0</p>	<p>39.028</p> <p>0</p>
<p>Title: In-Service Repairs</p> <p style="text-align: right;">Articles:</p> <p>FY 2010 Accomplishments:</p>	<p>1.600</p> <p>0</p>	<p>1.623</p> <p>0</p>	<p>1.634</p> <p>0</p>

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605863N: <i>RDT&E Ship & Aircraft Support</i>	PROJECT 0569: <i>RDT&E Acft Supt</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Continued to provide in the plan In-Service Repair funds for emergent repair requirements to aircraft performing mission critical test and evaluation projects. <i>FY 2011 Plans:</i> Continue to provide in the plan In-Service Repair funds for emergent repair requirements to aircraft performing mission critical test and evaluation projects. <i>FY 2012 Plans:</i> Continue to provide in the plan In-Service Repair funds for emergent repair requirements to aircraft performing mission critical test and evaluation projects.			
Accomplishments/Planned Programs Subtotals	35.619	33.003	40.662

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

The RDT&E Aircraft Support program goal is to provide the required funds to meet NAVAIR Aircraft Controlling Custodian aircraft sustainment requirements. These sustainment costs include providing annual support for required Planned Depot Maintenance events, In-service Repairs (P&E, Repairs, Mods), Depot Engine Inductions, Individual Material Readiness List Repairs, along with the funding of management oversight of the aircraft and the Aviation Depot Level Repairable costs associated with pilot readiness requirements.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605863N: <i>RDT&E Ship & Aircraft Support</i>	PROJECT 2924: <i>SDTS</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2924: <i>SDTS</i>	8.760	8.543	21.698	-	21.698	8.382	8.233	8.316	8.387	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 provides for the maintenance of Hull Mechanical and Electrical (HM&E) and installed Combat Systems of the Self-Defense Test Ship (SDTS) in support of the Navy Research, Development, Test and Evaluation (RDT&E) of ship self-defense systems. Testing aboard this ship reduces the number of fleet units required to support RDT&E efforts.

SDTS provides the capability to safely test self-defense weapon systems within their minimum range. A major cost of this project is regularly scheduled ship, combat system and remote control maintenance. The remainder of the funds is used for purchase of expendable supplies and routine equipment, fuel and petroleum products, and repairs and supporting services. Most costs are fixed and are associated with simply having this platform in the inventory.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: SDTS	8.760	8.543	21.698
Articles:	0	0	0
FY 2010 Accomplishments: NAVSURFWARCENDIV Port Hueneme, CA SDTS will support documentation development for SDTS installations of multiple configurations and support preparation to modify top side and below deck equipment. SDTS will continue to conduct planning, scheduling, and performing of maintenance onboard EDD 964 for HM&E, CS and remote control elements to provide the Navy a safe operational test asset.			
FY 2011 Plans: NAVSURFWARCENDIV Port Hueneme, CA SDTS will continue to conduct planning, scheduling, and performing of routine Hull, Mechanical and Electrical (HM&E) and Combat System and Remote Control maintenance onboard EDD 964 to provide the Navy a safe operational test asset. Support and begin preparation and conduct of drydock for continuation in FY12.			
FY 2012 Plans: NAVSURFWARCENDIV Port Hueneme, CA SDTS will continue to conduct planning, scheduling, and performing of routine Hull, Mechanical and Electrical (HM&E) and conclude drydock support execution. Continue Combat System and Remote Control maintenance onboard EDD 964 to provide the Navy a safe operational test asset.			
Accomplishments/Planned Programs Subtotals	8.760	8.543	21.698

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605863N: <i>RDT&E Ship & Aircraft Support</i>	PROJECT 2924: <i>SDTS</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

This line of accounting is for recurring combat system and ship maintenance.

E. Performance Metrics

Successfully remain safe, operational and available for testing and evaluation of systems. Successfully develop applicable operation and maintenance documentation and reporting of installations. Successfully timely report funding, schedule and technical delays, and issues in an unmanned, remotely controlled mode, if necessary affecting its availability status.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605863N: <i>RDT&E Ship & Aircraft Support</i>	PROJECT 3206: <i>T&E Enterprise</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3206: <i>T&E Enterprise</i>	90.491	19.932	38.340	-	38.340	19.604	71.866	76.324	14.124	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The T&E Enterprise consolidates all Air Warfare (AW) Ship Self Defense (SSD) at-sea testing across multiple class ships, beginning with CVN 74, LHD 8, LPD17, LHA 6, DDG 1000, CVN 78, and Littoral Combat Ship (LCS). This consolidated AW SSD test and evaluation approach meets the Probability of Raid Annihilation (PRA) (PRA is defined as a required surface ship defense against Anti-Ship Cruise Missiles), Self Defense Test Ship (SDTS) testing requirements as outlined in Air Warfare Ship Self Defense Enterprise TEMP 1714, and lead/operational ship testing requirements for ESSM TEMP 1471, RAM Blk 2 TEMP 286-1, DDG 1000 TEMP 1560, CVN 78 TEMP 1610, CEC TEMP 1415, SSDS TEMP 1400, LHA 6 TEMP 1697, AN/SPQ-9B TEMP 1463, SEWIP TEMP 1658 (Block 1A), 0686, and LCS TEMP 1695.

LHA 6 acquisition, installation and testing supports all big deck Amphibs and Carriers in the OA configuration as well as RAM BLK 2 OPEVAL, SSDS OA with RAM BLK 2, First non AEGIS SEWIP and ESSM.

The T&E Enterprise merges common ship, element, and system requirements into the least number of test events while leveraging planned Combat System Ship Qualification Trials (CSSQTs) to accomplish Developmental Testing (DT) and Operational Testing (OT) requirements. All tests on the SDTS require the sharing of infrastructure, missile range allocations, execution time and underway time to eliminate duplicative testing.

T&E Enterprise preserves end-to-end mission Operational Testing in a realistic operational environment, capitalizing on Probability of Raid Annihilation M&S data validated with results of that Operational Testing, and ensuring a consistent approach across ship classes. Applicability of all test events is beneficial across multiple ship classes with the same variation under test.

The T&E Enterprise acquires equipment for installation onboard the SDTS, conducts test and evaluation on the SDTS and lead/operational ships and satisfies the Probability of Raid Annihilation (PRA) Testbed Model Development and test execution requirements.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: T&E Enterprise	90.491	19.932	38.340
Articles:	0	0	0
FY 2010 Accomplishments:			
The primary focus of 2010 for T&E Enterprise is long lead acquisition of all combat system equipment needed for a leveraged installation period for the Self Defense Test Ship (SDTS). Ensure top side design coincides with the ordered/delivered Enterprise equipment onto the Self Defense Test Ship. Once equipment is in place installation services can begin and have been combined into a single window (where possible) in 2010 to reduce the duplication of multiple staging services (scaffolding, rigging, cabling,			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605863N: <i>RDT&E Ship & Aircraft Support</i>	PROJECT 3206: <i>T&E Enterprise</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>power generation, integration, etc.) PRA Testbed development, virtual range updates, and systems engineering will continue in support of LHA 6 and developed architecture will be documented for future support of future ship classes. Implementation and execution of Enterprise test events will continue to effectively leverage resources and support changes in ship delivery schedules.</p> <p><i>FY 2011 Plans:</i> The Enterprise effort shifts in 2011 to a test and evaluation focus for Enterprise ship classes onboard the Self Defense Test Ship (SDTS). Execution of test events will provide range time, threat and target build up, aircraft, use of the SDTS, DT/OT workups and applicable data analysis according to the Test and Evaluation Test Matrix. The PRA testbed will provide integration, components verification, validation and accreditation (VV&A) and documentation.</p> <p><i>FY 2012 Plans:</i> The AW SSD Enterprise Strategy will focus on the installation of DDG 1000 equipment during the SDTS dry dock phase planned for FY11/FY12. In FY12, the focus will slightly shift to the beginning phases of acquisition for CVN 78 and continue with test and evaluation events and the continuation of PRA Testbed development and execution.</p>				
Accomplishments/Planned Programs Subtotals		90.491	19.932	38.340
C. Other Program Funding Summary (\$ in Millions)				
N/A				
D. Acquisition Strategy				
<p>Acquisition of test equipment assets for Enterprise Ship Classes. Acquisition of LHA 6 test equipment assets begins in FY09 and continues in FY10. Acquisition of systems is tailored to each ship class, however applicable and beneficial across multiple ship classes with the same variation being testing.</p> <p>DDG 1000 test equipment assets will be acquired through a direct contract.</p>				
E. Performance Metrics				
<p>Successfully complete required documentation and reporting for Enterprise installations and required check out and testing of installations. Successfully complete all Enterprise Operational Test Readiness Reviews (OTRR). Successfully complete required Enterprise developmental testing/operational testing DT/OT testing and combat system ship qualification trials (CSSQT) related tests with 0 casualty delays. Successfully collect related test result data and distribute accordingly.</p>				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	368.819	376.418	335.367	-	335.367	334.401	332.010	334.961	339.385	Continuing	Continuing
0541: <i>AUTEC</i>	55.609	57.885	56.239	-	56.239	56.768	56.232	56.959	57.739	Continuing	Continuing
0566: <i>NAVAIR Environmental Compliance</i>	4.070	2.098	4.324	-	4.324	4.359	4.399	4.478	4.534	Continuing	Continuing
0653: <i>NAWC Weapons Division</i>	150.103	154.442	140.716	-	140.716	141.627	140.994	141.474	143.394	Continuing	Continuing
0654: <i>NAWC Acft Division</i>	116.049	122.604	95.321	-	95.321	96.120	95.629	96.327	97.536	Continuing	Continuing
2921: <i>Pacific Missile Range Facility</i>	5.119	5.227	5.220	-	5.220	1.349	0.041	0.046	0.057	Continuing	Continuing
2922: <i>MRTFB Maint & Repair</i>	25.368	21.300	21.026	-	21.026	21.547	22.086	22.792	23.073	Continuing	Continuing
3029: <i>T&E Policy Support</i>	0.755	0.782	0.748	-	0.748	0.747	0.757	0.773	0.783	Continuing	Continuing
3154: <i>Nanoose and Dabob Bay Ranges</i>	11.746	12.080	11.773	-	11.773	11.884	11.872	12.112	12.269	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program provides institutional maintenance and operations support for: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (AUTEC), Andros Island, Bahamas; the Environmental Compliance Program; Naval Air Warfare Center Weapons Division (NAWCWD), Point Mugu and China Lake, CA; Naval Air Warfare Center Aircraft Division (NAWCAD), Patuxent River, MD; Test and Evaluation (T&E) related capabilities at the Pacific Missile Range Facility, Barking Sands, HI; Maintenance and Repair at NAWCWD and NAWCAD; and the Naval Undersea Warfare Center Keyport (NUWC KEYPORT) Nanoose and Dabob Bay Ranges. The T&E activities make up the Navy portion of the Department of Defense's Major Range and Test Facility Base (MRTFB). These activities are chartered to perform T&E for the development and acquisition of technology advanced weapons systems. Core T&E capabilities and capacity are operated to obtain weapons system performance documentation for acquisition program milestone decisions to provide operational forces with effective weapons systems. This program provides Navy Acquisition Program Managers required test capabilities; lowers cost of T&E; removes cost and scheduling impact of providing their own T&E resources; and retains the physical airspace, land space and sea space needed to conduct testing.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
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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 0605864N: <i>Test & Evaluation Support</i>
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B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	369.154	376.418	358.005	-	358.005
Current President's Budget	368.819	376.418	335.367	-	335.367
Total Adjustments	-0.335	-	-22.638	-	-22.638
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.367	-			
• Program Adjustments	-	-	-10.166	-	-10.166
• Rate/Misc Adjustments	-	-	-12.472	-	-12.472
• Congressional General Reductions Adjustments	0.032	-	-	-	-

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0541: <i>AUTEC</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0541: <i>AUTEC</i>	55.609	57.885	56.239	-	56.239	56.768	56.232	56.959	57.739	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

As a detachment of Naval Undersea Warfare Center (NUWC), Division Newport, the mission of the Atlantic Undersea Test and Evaluation Center (AUTEC) is to provide the US Navy an underwater range facility for full-spectrum test and evaluation of Undersea Warfare (USW) systems and for Fleet training and readiness assessment. The AUTEC Program Office is headquartered at Newport, RI. AUTEC's administrative offices are located at West Palm Beach, Florida. Test facilities are located at Andros Island, Sites 1 through 4, and the Berry Islands in the Bahamas. AUTEC aircraft make scheduled daily flights between West Palm Beach and Andros Town Airport.

AUTEC manages and, under service contract, maintains and operates a 500 square nautical miles deep-water and a 100 square nautical miles shallow-water acoustic tracking range; air-target tracking capabilities; sonobuoy simulation systems; electronic warfare threat simulation systems; fixed and rotary wing aircraft; aircraft ground support facilities; acoustic targets; torpedo retrieval and flushing capabilities; open-ocean range craft; marine support facilities; and, data processing and analysis capabilities.

Major test facilities on Andros Island are located at Site 1. The Command Control Building houses the range tracking displays and replay centers, the computer center, operations support functions, communications center, and the central timing system. The Range Support Facility houses a torpedo post-run workshop, Mark 46 /Mark 50 lightweight torpedo Intermediate Maintenance Activity (IMA), a Mark 30 undersea target IMA, a Mark 48 heavyweight torpedo Research and Development (R&D) Turnaround facility and related technical facilities. The complex includes electrical and physical calibration labs, a complete electronics maintenance shop, a dive locker, a precision machine shop, and logistics support areas.

AUTEC has a 285-foot concrete pier with a controlling depth of 17 feet (5.2 meters) at mean low tide. An adjacent wharf is approximately 240 feet in length (72 meters) with a controlling depth of 15 feet at mean low tide. Power is available at both locations. Facilities at the pier/marine area include fully equipped machine /fabrication and marine overhaul shops. Also at Site 1, six Range User Buildings (RUBs) are maintained for assembling test equipment and equipment check-out during test mobilization or dockside periods. These staging areas are equipped with a variety of power sources, gantry cranes, compressed air and security features. A fully equipped range user hanger for ground maintenance and storage of helicopters is located at the AUTEC helicopter airstrip. Sites 2, 3, and 4 are small instrumented areas located south of Site 1 used to extend tracking of sonobuoys, communications, and air target track.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Atlantic Undersea Test and Eval Ctr Facility	44.559	46.835	45.189
Articles:	0	0	0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>		PROJECT 0541: <i>AUTEC</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2010	FY 2011	FY 2012
<p>Description: AUTEC is a Test and Evaluation (T&E) facility for collecting selected underwater, surface and air tracking data on test participants. This project funds the overhead/institutional costs required to sustain the Major Range and Test Facility (MRTFB) capabilities at AUTEC in accordance with Department of Defense Directive 3200.11.</p> <p>FY 2010 Accomplishments: AUTEC Facility. Maintained and operated mission essential/core test support resources, instrumentation systems and marine craft required to meet customer test workload. Funded civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimbursed the Command for General and Administrative support services.</p> <p>FY 2011 Plans: AUTEC Facility. Continue to maintain and operate mission essential/core test support resources, instrumentation systems and marine craft required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburse the Command for General and Administrative support services.</p> <p>FY 2012 Plans: Continue all efforts of FY2011.</p>						
<p>Title: Bahamian Lease</p> <p align="right">Articles:</p> <p>Description: Rental payments to the Bahamian government for use of land and ocean in the Bahamas.</p> <p>FY 2010 Accomplishments: Bahamian Lease. Provided rental payments to the Bahamian government for use of land and ocean in the Bahamas.</p> <p>FY 2011 Plans: Bahamian Lease. Continue to provide rental payments to the Bahamian government for use of land and ocean in the Bahamas.</p> <p>FY 2012 Plans: Continue all efforts of FY2011.</p>				11.050 0	11.050 0	11.050 0
Accomplishments/Planned Programs Subtotals				55.609	57.885	56.239

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0541: <i>AUTEC</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Maintain MRTFB infrastructure in a ready state to provide between 2,500-2,900 range hours in support of multiple Navy and DoD acquisition programs and fleet training.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0566: <i>NAVAIR Environmental Compliance</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0566: <i>NAVAIR Environmental Compliance</i>	4.070	2.098	4.324	-	4.324	4.359	4.399	4.478	4.534	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This continuing project supports environmental compliance, conservation and pollution prevention related efforts at the Navy Major Range and Test Facility Base (MRTFB) located at Patuxent River, MD, China Lake, CA, Point Mugu, CA, and Atlantic Undersea Test and Evaluation Center (AUTEC), Bahamas. The Navy MRTFB environmental projects include ongoing efforts to comply with Federal, State, and local environmental requirements.

The MRTFB are test and evaluation facilities that provide for Department of Defense (DoD) test and evaluation support missions. These missions include: Weapons system testing, military operational squadron training on new weapon systems, and validation of performance or operational characteristics.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Environmental Compliance	4.070	2.098	4.324
Articles:	0	0	0
Description: Continues hazardous waste disposal, solid waste disposal, natural and cultural resources programs, environmental permits, and environmental monitoring at AUTEC, Patuxent River, China Lake and San Nicolas Island.			
FY 2010 Accomplishments: Environmental Compliance. Continued comprehensive air pollution meteorology studies at Point Mugu. Continued range contamination assessments at impact areas and lay down yards at China Lake. Continued to monitor range operations environmental effects. Continued to monitor endangered species and marine mammals which is required in order to comply with applicable laws and regulations.			
FY 2011 Plans: Continue mandated monitoring of range operations environmental impacts. Continue monitoring of endangered species and marine mammals which is required in order to comply with applicable laws and regulations.			
FY 2012 Plans: Continue mandated monitoring of range operations environmental impacts. Continue monitoring of endangered species and marine mammals which is required in order to comply with applicable laws and regulations.			
Accomplishments/Planned Programs Subtotals	4.070	2.098	4.324

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0566: <i>NAVAIR Environmental Compliance</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Execute 15-20 environmental projects per year required to comply with existing laws, regulations, executive orders, and final governing standards.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0653: <i>NAWC Weapons Division</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0653: <i>NAWC Weapons Division</i>	150.103	154.442	140.716	-	140.716	141.627	140.994	141.474	143.394	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Project provides continuing maintenance and operational support for the Naval Air Warfare Center Weapons Division (NAWCWD) Test and Evaluation (T&E) capabilities. These capabilities include the Pacific Ranges and Facilities, consisting of China Lake Ranges and the Point Mugu Sea Range, aerial and surface targets, test instrumentation, and T&E aircraft. The Pacific Ranges use China Lake's 1.1 million acres of land and 17,000 square miles of military restricted (R-2508) airspace together with Point Mugu's 125,000 square miles of instrumented sea range and 36,000 square miles of controlled overlying airspace, and airfield and test instrumentation at San Nicolas Island to perform its T&E mission. Included in the China Lake ranges is the Electronic Combat Range (ECR), which provides outdoor free space development and operational testing of airborne electronic warfare systems and tactics against shipboard and land based air defense systems. These ranges perform metric radar, multilateration and optical tracking of test objects; command, control, and destruct for range safety purposes; communications; frequency interference control and analysis; collection processing and display of telemetered data; real-time data processing and display; and the operation of a sub scale aerial target launch capability. Other test capabilities include an outdoor High Power Microwave (HPM) measurement facility; propulsion, warhead, environmental, rocket motor, and other missile component test facilities; and gun ranges. This project funds costs that are not chargeable to customers.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Pacific Ranges	62.718	65.958	57.426
Articles:	0	0	0
Description: In accordance with (IAW) Department of Defense Directive (DoDD) 3200.11., this project funds the overhead/institutional costs required to sustain the Major Range Test Facility Base (MRTFB) capabilities at the Pacific Ranges and Facilities located at China Lake and Point Mugu CA. These facilities provide safe, instrumented, controlled open air testing utilizing the Land Range, Sea Range, Electronic Combat Range, Air Vehicle Modification and Instrumentation, and San Nicholas Island.			
FY 2010 Accomplishments: Pacific Ranges. Maintained and operated mission essential/core test support resources. These resources include test article instrumentation and/or modification for Flight Test Aircraft, Weapons Under Test and Aircraft Engines Undergoing Un-installed test. Scheduled and controlled air, land, sea and associated range operating areas required to meet customer test workload. Funded civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.			
FY 2011 Plans: Pacific Ranges. Continue to maintain and operate mission essential/core test support resources. These resources include test article instrumentation and/or modification for Flight Test Aircraft, Weapons Under Test and Aircraft Engines Undergoing Un-			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0653: <i>NAWC Weapons Division</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>installed test. Schedule and control air, land, sea and associated range operating areas required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p>FY 2012 Plans: Continue all efforts of FY2011.</p>				
<p>Title: Navy Test Wing Pacific</p> <p>Articles:</p> <p>Description: This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Naval Test Wing Pacific located at China Lake and Point Mugu CA. These facilities provide the Navy's principal Pacific test activity for Naval Aviation Systems Team aircraft, engaged in or supporting T&E of aircraft, weapons and weapons systems.</p> <p>FY 2010 Accomplishments: Navy Test Wing Pacific. Maintained and operated mission essential/core test support resources associated with 13 aircraft and related systems and flight test safety required to meet customer test workload. Funded civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p>FY 2011 Plans: Navy Test Wing Pacific. Continue to maintain and operate mission essential/core test support resources associated with 13 aircraft and related systems and flight test safety required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p>FY 2012 Plans: Navy Test Wing Pacific. Continue to maintain and operate mission essential/core test support resources associated with 10 aircraft and related systems and flight test safety required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p>		25.163 0	25.940 0	20.124 0
<p>Title: Threat/Target Systems</p> <p>Articles:</p> <p>Description: This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Threat/Target Systems facilities. These facilities provide the airborne and seaborne threats for test and evaluation.</p>		11.964 0	12.302 0	10.875 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0653: <i>NAWC Weapons Division</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p><i>FY 2010 Accomplishments:</i> Threat/Target Systems. Maintained and operated mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p><i>FY 2011 Plans:</i> Threat/Target Systems. Continue to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p><i>FY 2012 Plans:</i> Continue all efforts of FY2011.</p>				
<p><i>Title:</i> Test and Evaluation Ordnance</p> <p align="right"><i>Articles:</i></p> <p><i>Description:</i> This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Test and Evaluation Ordnance facilities. These facilities provide test and evaluation of All-Up live ordnance and components.</p> <p><i>FY 2010 Accomplishments:</i> Test and Evaluation Ordnance. Maintained and operated mission essential/core test support resources associated propulsion, warhead, environmental, rocket motor, and other missile component test facilities required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p><i>FY 2011 Plans:</i> Test and Evaluation Ordnance. Continue to maintain and operate mission essential/core test support resources associated propulsion, warhead, environmental, rocket motor, and other missile component test facilities required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p><i>FY 2012 Plans:</i> Continue all efforts of FY2011.</p>		3.342 0	3.459 0	2.824 0
<i>Title:</i> Staff		46.916	46.783	49.467

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0653: <i>NAWC Weapons Division</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Articles:		0	0	0
<p>Description: This project funds the overhead/institutional costs required to sustain the NAWCWD MRTFB Test and Evaluation capabilities.</p> <p>FY 2010 Accomplishments: Staff. Reimburses the Command for General and Administrative Support services. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Additional funds for utility costs increases and implementation of Department of Defense Inspector General (DoD IG) utility charging findings.</p> <p>FY 2011 Plans: Staff. Continue to reimburse the Command for General and Administrative Support services. Continue to fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Additional funds for utility costs increases and implementation of DoD IG utility charging findings.</p> <p>FY 2012 Plans: Continue all efforts of FY2011.</p>				
Accomplishments/Planned Programs Subtotals		150.103	154.442	140.716
C. Other Program Funding Summary (\$ in Millions)				
N/A				
D. Acquisition Strategy				
Not applicable.				
E. Performance Metrics				
Maintain MRTFB infrastructure in a ready state to provide between 4,300-4,800 range hours, 125-150 aerial target presentations, 400-450 surface target presentations, 11,000-11,500 ordnance test hours, and over 6,000 flight hours in support of multiple Navy and DoD acquisition programs and fleet training.				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0654: <i>NAWC Acft Division</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0654: <i>NAWC Acft Division</i>	116.049	122.604	95.321	-	95.321	96.120	95.629	96.327	97.536	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 provides funds for the maintenance and operations of the Naval Air Warfare Center Aircraft Division's (NAWCAD's) Major Range Test Facility Base (MRTFB) capabilities used to conduct test and evaluation for air platforms. NAWCAD has extensive airfield, flight test ranges, aircraft systems test facilities and simulation laboratories to support aircraft Research Development Test and Evaluation (RDT&E). This includes 50,000 square miles of airspace, 39,375 square miles of sea space, and 7,950 acres of land space. Product areas include aircraft systems flight test and evaluation, carrier suitability certification, test article preparation, installed system test and evaluation, and modeling and simulation support of the acquisition process. The Test and Evaluation (T&E) Group, Patuxent River, performs development and operational test and evaluation of manned and unmanned air vehicle systems, including mission systems, equipment, subsystems, components, and support systems. This project also provides test and evaluation facilities for air-breathing propulsion systems and extensive facilities for conducting both installed and uninstalled aircraft engine development and test and evaluation. This project funds costs that are not chargeable to customers.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Atlantic Ranges	25.105	25.065	23.275
Articles:	0	0	0
Description: This project funds the overhead/institutional costs required to sustain the MRTFB capabilities associated with the Atlantic Ranges and Facilities and Air Vehicle Modification and Instrumentation. These facilities provide safe, instrumented, controlled flight testing and training in air, sea, and land arenas.			
FY 2010 Accomplishments: Atlantic Ranges. Maintained and operated mission essential/core test support resources. These resources include test article instrumentation and/or modification for Flight Test Aircraft and Weapons Under Test as well as, ground and flight test instrumentation systems, range instrumentation systems and data processing and communication systems required to meet customer test workload. Funded civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Increase for the Aircraft Prototype Facility.			
FY 2011 Plans: Atlantic Ranges. Continue to maintain and operate mission essential/core test support resources. These resources include test article instrumentation and/or modification for Flight Test Aircraft and Weapons Under Test as well as, ground and flight test instrumentation systems, range instrumentation systems and data processing and communication systems required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance,			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0654: <i>NAWC Acft Division</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Increase for the Aircraft Prototype Facility. FY 2012 Plans: Continue all efforts of FY2011.				
Title: Electromagnetic Environmental Effects (E-Cubed) and Air Combat Environment Test and Evaluation Facility (ACETEF) Description: This project funds the overhead/institutional costs required to sustain the MRTFB capabilities associated with E-Cubed and Air Combat Environment Test and Evaluation Facility. These facilities provide T&E support with integrated, interactive, and repeatable synthetic environments and reduce the risk and cost for programs with the use of installed systems tests to include simulation and stimulation tools, techniques and technologies. FY 2010 Accomplishments: E-Cubed and ACETEF. Maintained and operated mission essential/core test support resources required to meet customer test workload. Funded civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. FY 2011 Plans: E-Cubed and ACETEF. Continue to maintain and operate mission essential/core test support resources required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. FY 2012 Plans: Continue all efforts of FY2011.		21.469 Articles: 0	21.326 0	19.692 0
Title: Propulsion Systems Test Facility Description: This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Propulsion System Evaluation facility. These facilities perform T&E of propulsion systems in the laboratories, engine test chambers and component test rigs of the Propulsion Systems Test Facility and the Aircraft T&E Facility. Propulsion Systems consists of engines, engine components and accessories. FY 2010 Accomplishments:		4.589 Articles: 0	4.469 0	4.200 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0654: <i>NAWC Acft Division</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Maintained and operated mission essential/core test support resources required to meet customer test workload. Funded civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p>FY 2011 Plans: Continue to maintain and operate mission essential/core test support resources required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p>FY 2012 Plans: Continue all efforts of FY2011.</p>				
<p>Title: Threat/Target Systems</p> <p align="right">Articles:</p> <p>Description: This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Threat/Target Systems facilities. These facilities provide the airborne and seaborne threats for test and evaluation.</p> <p>FY 2010 Accomplishments: Threat/Target Systems. Maintained and operated mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Funded civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p>FY 2011 Plans: Threat/Target Systems. Continue to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p>FY 2012 Plans: Continue all efforts of FY2011.</p>		1.954 0	1.961 0	1.564 0
<p>Title: Naval Test Wing Atlantic</p> <p align="right">Articles:</p>		34.221 0	44.693 0	22.694 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0654: <i>NAWC Acft Division</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Description: This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Naval Test Wing Atlantic. These facilities provide support for Naval Aviation Systems Team aircraft, engaged in or supporting T&E aircraft systems.</p> <p>FY 2010 Accomplishments: Naval Test Wing Atlantic. Maintained and operated mission essential/core test support resources associated with 20 aircraft and related systems and flight test safety required to meet customer test workload. Funded civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Increased to support additional chase and tanker aircraft required to support F/A-18E/F/G and Joint Strike Fighter (JSF).</p> <p>FY 2011 Plans: Naval Test Wing Atlantic. Continue to maintain and operate mission essential/core test support resources associated with 23 aircraft and related systems and flight test safety required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Increase to support additional chase and tanker aircraft required to support F/A-18E/F/G and JSF.</p> <p>FY 2012 Plans: Continue to maintain and operate mission essential/core test support resources associated with only 12 aircraft and related systems and flight test safety required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p>				
<p>Title: Staff</p> <p align="right">Articles:</p>		28.711 0	25.090 0	23.896 0
<p>Description: This project funds the overhead/institutional costs required to sustain the NAWCAD MRTFB Test and Evaluation capabilities.</p> <p>FY 2010 Accomplishments: Staff. Reimbursed the Command for General and Administrative Support services. Funded civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p>FY 2011 Plans:</p>				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605864N: <i>Test & Evaluation Support</i>	PROJECT 0654: <i>NAWC Acft Division</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Staff. Continue to reimburse the Command for General and Administrative Support services. Continue to fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Continue all efforts of FY2010 except for the funding of NMCI equipment which was realigned to different program element. <i>FY 2012 Plans:</i> Continue all efforts of FY2011.			
Accomplishments/Planned Programs Subtotals	116.049	122.604	95.321

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Maintain MRTFB infrastructure in a ready state to provide between 8,700-9,200 range hours, 4,900-5,300 chamber hours, 9,500-10,000 E-Cubed test hours, and over 10,000 flight hours in support of multiple Navy and Department of Defense (DoD) acquisition programs and fleet training.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 2921: <i>Pacific Missile Range Facility</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2921: <i>Pacific Missile Range Facility</i>	5.119	5.227	5.220	-	5.220	1.349	0.041	0.046	0.057	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This program provides continuing maintenance and operations support for Test & Evaluation (T&E) related capabilities at the Pacific Missile Range Facility (PMRF) located at Barking Sands on Kauai, HI. PMRF's T&E capabilities include precision radar and telemetry assets, the Mobile Aerial Target Support System (MATSS), and optical tracking systems. These assets support Navy, Department of Defense, and Army Missile Defense Test & Evaluation. This project funds costs not chargeable to customers. Effective FY 12 and out, PMRF instrumentation will be phased out due to large funding reductions.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Pacific Missile Range Facility	5.119	5.227	5.220
Articles:	0	0	0
Description: This project funds the overhead/institutional costs required to sustain the recognized Major Range Test Facility Base (MRTFB) capabilities at PMRF in accordance with Department of Defense Directive 3200.11.			
FY 2010 Accomplishments: PMRF Test and Evaluation Assets. Maintained and operated mission essential/core test support resources including the precision radar and telemetry assets, the MATSS, the Stabilized High-accuracy Optical Tracking System (SHOTS), and the Telemetry Systems required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburses the Command for General and Administrative support services.			
FY 2011 Plans: PMRF Test and Evaluation Assets. Continue to maintain and operate mission essential/core test support resources including the precision radar and telemetry assets, the MATSS, the SHOTS, and the Telemetry Systems required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburses the Command for General and Administrative support services.			
FY 2012 Plans: Effective FY 12 and out, PMRF instrumentation will be phased out due to large funding reductions.			
Accomplishments/Planned Programs Subtotals	5.119	5.227	5.220

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 2921: <i>Pacific Missile Range Facility</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

Maintain MRTFB infrastructure in a ready state to provide between 600-1,000 range hours in support of multiple Navy and DoD acquisition programs and fleet training.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 2922: <i>MRTFB Maint & Repair</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2922: <i>MRTFB Maint & Repair</i>	25.368	21.300	21.026	-	21.026	21.547	22.086	22.792	23.073	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 provides funding for the maintenance and repair of the Major Range Test Facility Base (MRTFB) Real Property Maintenance Activities (RPMA) at the Naval Air Warfare Center Weapons Division (NAWCWD), the Naval Air Warfare Center Aircraft Division (NAWCAD), and the Atlantic Undersea Test and Evaluation Center (AUTEC). Funds mission critical emergency services, recurring maintenance and repair, and major repair projects. In addition it addresses priority items on the Backlog of Maintenance and Repair list.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Facility Maintenance and Repair	25.368	21.300	21.026
Articles:	0	0	0
Description: Maintenance and repair of the MRTFB RPMA at NAWCWD, NAWCAD, and AUTEC.			
FY 2010 Accomplishments: Facility Maintenance and Repair. Supported mission critical emergency services, recurring maintenance and repair, and minor and major repair efforts at NAWCWD, NAWCAD, and AUTEC. FY10 budget funds MRTFB facility to 90% of Department of Defense (DoD) sustainment model and addresses restoration and modernization of Hangars and roads.			
FY 2011 Plans: Facility Maintenance and Repair. Continue to support mission critical emergency services, recurring maintenance and repair, and minor and major repair efforts at NAWCWD, NAWCWD, and AUTEC. FY11 budget funds MRTFB facility to 90% of DoD sustainment model.			
FY 2012 Plans: Continue all efforts of FY2011.			
Accomplishments/Planned Programs Subtotals	25.368	21.300	21.026

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 2922: <i>MRTFB Maint & Repair</i>

E. Performance Metrics

Maintain the 141, 357, and 784 building/structures at AUTECH, NAWCAD, and NAWCWD respectively. Execute 15-20 major repair projects per year to address mission critical services.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 3029: <i>T&E Policy Support</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3029: <i>T&E Policy Support</i>	0.755	0.782	0.748	-	0.748	0.747	0.757	0.773	0.783	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 provides funds to support Test and Evaluation (T&E) policy, transformation, programming, requirements validation, and T&E dispute arbitration and resolution in an evolutionary acquisition environment. This expertise is also used as required to support the completion of the Navy T&E mission including oversight of T&E plans for Navy and Joint acquisition programs, liaison with other agencies on T&E matters, development of T&E strategic plans, conduct of T&E studies and assessments, formulation and validation of T&E capability needs, assessment and support of future testing of formal acquisition programs, and identification of Science and Technologies required to support T&E of future acquisition programs.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: T&E Policy & Requirements Validation Support	0.755	0.782	0.748
Articles:	0	0	0
Description: T&E policy and requirements validation.			
FY 2010 Accomplishments: T&E Policy & Requirements Validation Support. Provided funding for labor, material, and travel in support of the T&E policy and requirements validation.			
FY 2011 Plans: T&E Policy & Requirements Validation Support. Continue to provide funding for labor, material, and travel in support of the T&E policy and requirements validation.			
FY 2012 Plans: Continue all efforts of FY2011.			
Accomplishments/Planned Programs Subtotals	0.755	0.782	0.748

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 3029: <i>T&E Policy Support</i>

E. Performance Metrics

Assess and validate requirements for over 25 Navy and Joint test capability investments per year.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 3154: <i>Nanoose and Dabob Bay Ranges</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3154: <i>Nanoose and Dabob Bay Ranges</i>	11.746	12.080	11.773	-	11.773	11.884	11.872	12.112	12.269	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 provides maintenance and operations support for the Nanoose and Dabob Bay Ranges along with associated support systems to provide Test and Evaluation (T&E) and readiness assessment services for acquisition programs and the Fleet. Operates ocean-based environment, measurement and support systems. Maintains and repairs systems that measure warfare system performance. Oversees test, training, and measurement facilities, equipment, operations and maintenance processes. Satisfies customer exercise and measurement requirements through the operation of ocean based test and measurement systems. Assures the readiness of systems through the implementation of calibration, maintenance, repair and life cycle processes. Performs exercise planning, exercise interpretation and development of surrogate environments, measurement and support systems. Assists in the design, fabrication and testing of systems for Undersea Warfare (USW) warfare environment simulation and performance measurement. Oversees the manning and maintenance of Naval Undersea Warfare Center (NUWC) Division Keyport range craft and range craft systems.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Undersea Ranges	11.746	12.080	11.773
Articles:	0	0	0
Description: This project funds the overhead/Institutional costs required to sustain the Major Range Test Facility Base (MRTFB) capabilities at the Nanoose and Dabob Bay undersea tracking ranges.			
FY 2010 Accomplishments: Undersea Ranges. Maintained and operated mission essential/core test support resources associated with the unique test environments for test and evaluation of undersea weapons, sensors, submarines and other undersea systems required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburses the Command for General and Administrative support services.			
FY 2011 Plans: Undersea Ranges. Continue to maintain and operate mission essential/core test support resources associated with the unique test environments for test and evaluation of undersea weapons, sensors, submarines and other undersea systems required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605864N: <i>Test & Evaluation Support</i>	PROJECT 3154: <i>Nanoose and Dabob Bay Ranges</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburses the Command for General and Administrative support services. FY 2012 Plans: Undersea Ranges. Continue all efforts of FY2011.				
Accomplishments/Planned Programs Subtotals		11.746	12.080	11.773
C. Other Program Funding Summary (\$ in Millions) N/A				
D. Acquisition Strategy Not applicable.				
E. Performance Metrics Maintain MRTFB infrastructure in a ready state to provide between 1,600-2,000 range hours in support of multiple Navy and Department of Defense (DoD) acquisition programs and fleet training.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605865N: <i>Operational Test & Eval Capability</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	12.997	15.746	16.634	-	16.634	16.829	17.159	17.529	17.797	Continuing	Continuing
0831: <i>OPTEVFOR Support</i>	12.516	15.290	16.163	-	16.163	16.347	16.668	17.027	17.286	Continuing	Continuing
2923: <i>Navy JT&E Support</i>	0.481	0.456	0.471	-	0.471	0.482	0.491	0.502	0.511	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element (PE) provides Commander, Operational Test and Evaluation Force (COMOPTEVFOR) general support funding for headquarters annual operating costs and ensures COMOPTEVFOR compliance with Secretary of Defense (SECDEF) and Secretary of the Navy (SECNAV) directives to conduct independent operational testing and evaluation. Funding supports planning, conducting, and reporting on the operational effectiveness and suitability of new and improved systems and recommending fleet usage to the Chief of Naval Operations (CNO). Funding is also used to support ongoing development and implementation of new requirements relative to integrated testing. The CNO, as well as acquisition executives and managers at all levels, have a continuing need for expeditious and efficient conduct of Operational Test and Evaluation (OT&E) by COMOPTEVFOR in support of training and equipping fleet forces. To this end, CNO has increased funding program support for COMOPTEVFOR beginning FY 2011 and beyond as displayed herein. This increase will support COMOPTEVFOR pursuing a variety of senior management initiatives aimed at increasing efficiencies in T&E; new senior management initiatives will include IT database and decision making technology upgrades, implementation of Integrated Testing and Mission Based Test Design across all programs, and improved civilian staffing and expertise in the areas of DON acquisition processes, Modeling and Simulation, Statistical Studies, Cost Analysis, Information Assurance, and similar disciplines. All of these senior management initiatives are aimed at improving the quality of testing and evaluation, thus ensuring delivery to fleet units of fully tested and capable combat systems. OT&E issues have direct long term Navy-wide implications on the Fleet's readiness and war fighting capability. Rapid advances in technology, changes in fleet tactics, and increased complexity of weapons systems and platforms, combined with reductions in manpower, force structure, and budgets have created an increased need for technical and operational analyses that are sophisticated and timely in order to ensure an optimal return on investment of Navy resources. Funding is also provided for Navy support of the Office of the Secretary of Defense (OSD) sponsored Joint Test and Evaluation (JT&E) program.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
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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 0605865N: <i>Operational Test & Eval Capability</i>
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B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	11.960	15.746	16.853	-	16.853
Current President's Budget	12.997	15.746	16.634	-	16.634
Total Adjustments	1.037	-	-0.219	-	-0.219
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	1.200	-			
• SBIR/STTR Transfer	-0.163	-			
• Program Adjustments	-	-	-0.194	-	-0.194
• Rate/Misc Adjustments	-	-	-0.025	-	-0.025

Change Summary Explanation

Technical: N/A

Schedule: N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605865N: <i>Operational Test & Eval Capability</i>	PROJECT 0831: <i>OPTEVFOR Support</i>
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COST (\$ in Millions)	FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		Cost To Complete	Total Cost
	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost					
0831: <i>OPTEVFOR Support</i>	12.516	15.290	16.163	-	16.163	16.347	16.668	17.027	17.286	Continuing	Continuing					
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0							

A. Mission Description and Budget Item Justification

This PE provides COMOPTEVFOR general support funding for headquarters annual operating costs and ensures COMOPTEVFOR compliance with SECDEF and SECNAV directives to conduct independent operational testing and evaluation as well as responding to emerging requirements associated with establishing and maintaining compliance with the Department of the Navy's Continuity of Operation (COOP) Program. Funding supports planning, conducting, and reporting on the operational effectiveness and suitability of new and improved systems and recommending fleet usage to the CNO. To this end, CNO has increased funding program support for COMOPTEVFOR beginning FY 2011 and beyond as displayed herein. This increase will support COMOPTEVFOR pursuing a variety of senior management initiatives aimed at increasing efficiencies in T&E; new senior management initiatives will include IT database and decision making technology upgrades, implementation of Integrated Testing and Mission Based Test Design across all programs, and improved civilian staffing and expertise in the areas of DON acquisition processes, Modeling and Simulation, Statistical Studies, Cost Analysis, Information Assurance, and similar disciplines. All of these senior management initiatives are aimed at improving the quality of testing and evaluation, thus ensuring delivery to fleet units of fully tested and capable combat systems. The CNO has a continuing need for expeditious and efficient conduct of OT&E by COMOPTEVFOR in support of training and equipping fleet forces. OT&E issues have direct long term Navy-wide implications on the Fleet's readiness and war fighting capability. Rapid advances in technology, changes in fleet tactics, and increased complexity of weapons systems and platforms, combined with reductions in manpower, force structure, and budgets have created an increased need for technical and operational analyses that are sophisticated and timely to ensure an optimal return on investment of Navy resources.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: OPTEVFOR SUPPORT	12.516	15.290	16.163
Articles:	0	0	0
Description: The CNO has increased funding program support for COMOPTEVFOR beginning FY 2011 and beyond. This increase will support COMOPTEVFOR pursuing a variety of senior management initiatives aimed at increasing efficiencies in T&E; new senior management initiatives will include IT database and decision making technology upgrades, implementation of Integrated Testing and Mission Based Test Design across all programs, and improved civilian staffing and expertise in the areas of DON acquisition processes, Modeling and Simulation, Statistical Studies, Cost Analysis, Information Assurance, and similar disciplines. All of these senior management initiatives are aimed at improving the quality of testing and evaluation, thus ensuring delivery to fleet units of fully tested and capable combat systems.			
FY 2010 Accomplishments: - Continued to operationally test and evaluate CNO projects commensurate with authorized funding level. Begin initial preparation for implementation of senior management initiatives mentioned previously.			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605865N: <i>Operational Test & Eval Capability</i>	PROJECT 0831: <i>OPTEVFOR Support</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<p>- Continued to maintain level of effort associated with the DoD 5000-acquisition guidance, which requires increased COMOPTEVFOR involvement in early operational assessments, developmental testing, advanced concept technology demonstrations, and advanced technology demonstrations.</p> <p>FY 2011 Plans:</p> <p>- Continue all efforts of FY10.</p> <p>- Implement senior management initiatives aimed at increasing efficiencies in T&E including IT database and decision making technology upgrades, implementation of Integrated Testing and Mission Based Test Design across all programs, and improved civilian staffing and expertise in the areas of DON acquisition processes, Modeling and Simulation, Statistical Studies, Cost Analysis, Information Assurance, and similar disciplines. All of these senior management initiatives are aimed at improving the quality of testing and evaluation, thus ensuring delivery to fleet units of fully tested and capable combat systems.</p> <p>FY 2012 Plans:</p> <p>- Continue previously described efforts of FY11; complete implementation of senior management initiatives above (IT database and decision making technology upgrades, implementation of Mission Based Test Design across all programs, improved civilian staffing expertise in areas previously indicated).</p>			
Accomplishments/Planned Programs Subtotals	12.516	15.290	16.163

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable.

E. Performance Metrics

As indicated in section A above, funding provides for core headquarters operations and support (O&S) costs related to required operational testing and evaluation (T&E) conducted in support of Navy acquisition programs. The preponderance of funding provides for the annual O&S costs for day to day operations of the staff/headquarters of COMOPTEVFOR, located in Norfolk, Virginia. (Pursuant to DoD Financial Management Regulations and Navy financial policy guidance, as a T&E activity, COMOPTEVFOR's annual support costs are funded via RDTEN vice OMN; hence, and unlike most RDT&EN programs, these funds provide for O&S costs typical of military field commands/activities). Within this project, over 2/3 of the funding supports salaries of assigned civilian personnel. The remaining funds provide for other routine support costs such as travel, IT support, supplies, and other overhead/administrative support costs. The primary metric used within the project involves support for scheduled Navy acquisition program testing and subsequent analysis and reporting of results of testing to appropriate senior Navy acquisition officials and to the Navy chain of command directly to the CNO and various OPNAV/SECNAV staff offices. The performance goal is met when all assigned/scheduled testing and reporting is supported each year. Specific test program success is measured through analytic results of testing conducted throughout the year and constant interaction

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	PE 0605865N: <i>Operational Test & Eval Capability</i>	0831: <i>OPTEVFOR Support</i>

with program offices, acquisition decision makers, OPNAV staff resource sponsor offices, OSD and other service T&E offices/activities, and miscellaneous other customers/stakeholders. This project also supports testing and evaluation of various Joint/multi-service programs in which the Navy shares responsibilities in support of the acquisition community. The following metrics relate directly to the funding provided and are applicable to current operations.

Number of Tests Conducted - FY10 = 101; FY11 = 110; FY12 = 119
Number of Programs Supported - FY10 = 410; FY11 = 420; FY12 = 425

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605865N: <i>Operational Test & Eval Capability</i>	PROJECT 2923: <i>Navy JT&E Support</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2923: <i>Navy JT&E Support</i>	0.481	0.456	0.471	-	0.471	0.482	0.491	0.502	0.511	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 provides funding for Navy support of the OSD-sponsored JT&E program. This funding covers cost associated with facilities, personnel, and administrative support for T&E-focused Navy-led Joint Feasibility Studies and Joint Tests to ensure Navy compliance with requirements established by directive from the SECDEF to carry out the JT&E program. The funding is used for planning, conducting, and reporting the results of T&E-focused JT&E projects to assess the interoperability of recommendations on improvements in joint technical and operational concepts, to evaluate and validate testing methodologies having multi-service application, to assess technical or operational performance of interrelated and/or interacting systems under realistic joint operational conditions, and to provide data from joint field tests and exercises with which to validate models, simulations, and test beds. This funding is essential for Navy participation with the other services in these critical joint areas.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: JOINT TEST & EVALUATION	0.481	0.456	0.471
Articles:	0	0	0
FY 2010 Accomplishments: - Continue to support JT&E projects as directed by the JT&E Senior Advisory Council.			
FY 2011 Plans: - Continue all efforts of FY10.			
FY 2012 Plans: - Continue all efforts of FY11.			
Accomplishments/Planned Programs Subtotals	0.481	0.456	0.471

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

This project supports testing and evaluation of various Joint/multi-service programs in which the Navy shares responsibilities in support of the acquisition community.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605866N: <i>Navy Space & Electr Warfare Supt</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	2.506	9.213	4.228	-	4.228	4.674	4.780	4.814	5.053	Continuing	Continuing
0706: <i>EMC & RF Mgmt</i>	1.956	8.558	3.627	-	3.627	4.088	4.186	4.219	4.458	Continuing	Continuing
0739: <i>Navy C2 Top Level</i>	0.550	0.655	0.601	-	0.601	0.586	0.594	0.595	0.595	Continuing	Continuing

A. Mission Description and Budget Item Justification

Project 0706, Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management: Develops advanced technology to identify and reduce EMI sources from Navy systems research and development technology to develop top-level plans and space systems in the Space and Electronic Warfare (SEW) mission area. The Space and Electronic Warfare Shipboard Electromagnetic Compatibility Improvement Program (SEMCIIP) is an element of the Electromagnetic Compatibility (EMC) Systems Engineering Program.

Project 0739, Navy Command, Control, Communications, Computers, and Intelligence (C4I) Top Level Requirements - This project provides analysis of both Fleet requirements and research and development technology to develop top-level plans and space systems in the Space and Electronic Warfare (SEW) mission area. The Space and Electronic Warfare Studies and Analysis Program (SEWSAP) supports analyses of fleet requirements and research and development technology to develop top-level plans for operating Navy Command, Control, Communications, Intelligence, Surveillance and Reconnaissance (C4ISR) and space systems in the SEW mission area.

Overseas Contingency Operations (OCO) Request: Combat Enabler in Theatre Operation Iraqi Freedom (OIF) - Joint Emitters during the continuing OIF operations was a source of debilitating electromagnetic interference to critical United States Navy (USN) Air Operations (OPS) and Ballistic Missile Defense (BMD) assets.

In-Theater and Pre-Deployment OIF: Will address impact of upgrades to deploying ships and development of electromagnetic interference solutions for the deploying strike group.

JUSTIFICATION FOR BUDGET ACTIVITY:

This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
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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 0605866N: <i>Navy Space & Electr Warfare Supt</i>
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B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	2.659	4.013	4.789	-	4.789
Current President's Budget	2.506	9.213	4.228	-	4.228
Total Adjustments	-0.153	5.200	-0.561	-	-0.561
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.094	-			
• Program Adjustments	-	5.200	-0.209	-	-0.209
• Section 219 Reprogramming	-0.047	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.352	-	-0.352
• Congressional General Reductions Adjustments	-0.012	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605866N: <i>Navy Space & Electr Warfare Supt</i>	PROJECT 0706: <i>EMC & RF Mgmt</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0706: <i>EMC & RF Mgmt</i>	1.956	8.558	3.627	-	3.627	4.088	4.186	4.219	4.458	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management. This project develops tools, processes, and algorithms to identify and reduce EMI sources for Navy systems and platforms.

(a) Automated spectrum capabilities will be enhanced to comply with fleet operational requirements and streamline Strike Force frequency management processes. It will provide automated Spectrum Management (SM) tools for development of operational task communication and radar/weapon plans to support fleet deployments, exercises, contingency operations, and the war on terrorism. It will provide identification and mitigation of EMI in Navy, North Atlantic Treaty Organization (NATO), Allied, Ashore and Joint Combat Operations.

(b) It will support the Shipboard Electromagnetic Compatibility Improvement Program (SEMCIP), an element of the Electromagnetic Compatibility (EMC) Systems Engineering Program to identify, engineer, and evaluate effectiveness of potential EMI corrections.

(c) Electromagnetic Pulse (EMP) Survivability Program provides for the Navy response to Secretary of Defense tasking to assess the EMP survivability of all mission critical systems and to develop a hardness assurance and maintenance program. Develops improved modeling capability to reduce hardness validation costs at delivery and over the lifetime of the system/platform. Provides design criteria, test methodology, test limits, and survivability validation procedures for all Navy systems, ships, submarines and shore facilities.

(d) Advanced Technology: Investigates below deck electromagnetic environmental effects and develops the capability to perform remote spectrum monitoring and electromagnetic noise monitoring. Also, develops the tools and technologies for innovative and efficient spectrum use, and continues the development of relationships between measured EMI and system performance for selected communications systems.

(e) FY11 OCO Planned Program funds will be used for Combat Enabler in Theater OIF and Pre-Deployment OIF.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: AESOP (Integrated CPM and EMCAP)	0.704	0.722	1.000
Articles:	0	0	0
FY 2010 Accomplishments:			
Continued development of interfaces for Afloat Electromagnetic Spectrum Operations Program (AESOP), and other automated tools to interface with evolving network protocols and to ensure currency for web-based applications. Developed new algorithms			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605866N: <i>Navy Space & Electr Warfare Supt</i>	PROJECT 0706: <i>EMC & RF Mgmt</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>for automated tools for new Navy C4ISR systems for both government and commercial communication systems. Implemented a set of web-based capabilities utilizing latest technologies Extensible Markup Language (XML) and other data standards to optimize information exchange and usability.</p> <p>FY 2011 Plans: Institutionalize frequency management process for operational fleet by developing procedures that can be utilized by strike groups. Make recommendations to update existing combatant commands, and numbered fleet directives regarding spectrum use in their areas of responsibility. Coordinate with ranges regarding impacts of spectrum relocation for systems used during tests, such as telemetry and data collection. Update the AESOP with the new radiation restrictions that reflect current legal requirements that result from spectrum relocation worldwide.</p> <p>FY 2012 Plans: Initiate frequency management coordination with NATO/Coalition partners to enhance operational capability of spectrum management analysis tools that can be utilized by all Navy Strike Groups. Make recommendations to combatant commands, and numbered fleets concerning NATO/Coalition spectrum use in respective areas of responsibility. Update the AESOP with NATO/Coalition requirements and distribute to all commands.</p>				
<p>Title: EMC Systems Engineering (SEMCIP)</p> <p align="right">Articles:</p> <p>FY 2011 Plans: Identify and characterize EMI which can debilitate the Combat capability of strike force capability and operational readiness. Focus in on Ku-Band Common Data Link (CDL) and next generation systems (Commercial Broadband SATCOM Program and High Frequency Synthetic Aperture Radar (HF SAR)). Evaluate the effectiveness of proposed EMI solutions and coordinate for procurement of final EMI fix.</p> <p>FY 2012 Plans: Identify and characterize EMI which can debilitate the Combat capability of strike force capability and operational readiness. Focus in on the next generation radars AN/SPY-3 and the Multi-Function Radar (MFR). Evaluate the effectiveness of proposed EMI solutions and coordinate for procurement of final EMI fix.</p>		-	1.500 0	1.230 0
<p>Title: EMP Survivability</p> <p align="right">Articles:</p> <p>FY 2010 Accomplishments:</p>		0.980 0	1.021 0	1.050 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605866N: <i>Navy Space & Electr Warfare Supt</i>	PROJECT 0706: <i>EMC & RF Mgmt</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>Prepared EMP Survivability Assessment and EMP Hardness Maintenance Plan. Prepared instruction updates on EMP survivability. Developed modeling capabilities and alternative techniques to reduce hardness validation costs at delivery.</p> <p>FY 2011 Plans: Develop and publish EMP Certification process in accordance with Military Standard (MIL-STD) 188-125 High-Altitude Electromagnetic Pulse (HEMP) Protection for Ground-Based C41 Facilities. Support Navy and Defense Threat Reduction Agency (DTRA) in the development of a Maritime EMP Standard.</p> <p>FY 2012 Plans: Continue development of a Maritime EMP Standard. Perform shipboard testing aboard decommissioned platforms to attain required parametric information to complete standard requirements. Support development of new technologies to harden ashore sites and mission critical systems from a nuclear blast.</p>				
<p>Title: Advanced Technology</p> <p align="right">Articles:</p> <p>FY 2010 Accomplishments: Continued below decks characterization, investigate predictive application, and developed tools and technologies for spectrum usage.</p> <p>FY 2011 Plans: Initiate research into spectrum efficiency studies to allow radars and communication systems to operate compatible in the electromagnetic battle space. Develop spectrum efficiency guides for use by program managers in the development of the next generation systems (radars and communication systems) for use aboard ships and submarines.</p> <p>FY 2012 Plans: Complete spectrum efficiency studies. Using previously developed guides, issue military specification for use by program offices and program managers in the development of the next generation systems (radars and communication systems). In support of the Navy Information Dominance concept, initiate technology studies to develop "smart chip" devices that will permit systems to connect to the Global Information Grid (GIG). These smart chip devices will provide technical and spectral information about systems connecting to the GIG. Develop net-centric and self sensing shipboard applications (systems) that can sense the electromagnetic environment and shift in frequency to avoid interference. Develop a dynamic spectrum operations schema to collect information from the smart chip devices and allocate the electromagnetic spectrum - on the fly - mitigating electromagnetic interference.</p>		0.272 0	0.115 0	0.347 0
<p>Title: Overseas Contingency Operations (OCO)</p> <p align="right">Articles:</p>		-	5.200 0	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605866N: <i>Navy Space & Electr Warfare</i> <i>Supt</i>	PROJECT 0706: <i>EMC & RF Mgmt</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<p><i>FY 2011 Plans:</i></p> <p>(\$1.900) Combat Enabler in Theater (Overseas Contingency Operation - OCO) Operation Iraqi Freedom (OIF): Joint Emitters during the continuing OIF operations was a source of debilitating Electro Magnetic Interference (EMI) to critical air operations and BMD assets. In response to FY11 OIF requirements, funding will be used to expand afloat and ashore spectrum management tools to address the critical need for interoperability with the USMC's spectrum management applications and put into place a joint capability for the warfighter. USN/USMC integration promotes interoperability with the multi-national deployed forces fighting the OCO and decreases the risk of friendly fire incidents. Accurate and timely information on the interoperability of USN and USMC systems provided by this Joint Capability leverages the response of both the USN and USMC to OCO. Increased situational awareness, reduction of interference, and restored mission capability are all expected benefits of the improved processes and procedures. The requested funds will deliver a Joint capability system that allows group planning and execution, information data discovery, data interoperability, and data fusion to USN and USMC forces directly supporting OIF and the OCO. Data tasking and deliverables are classified.</p> <p>(\$3.300) In-Theater & Pre-Deployment (OCO) OIF: Funding to address impact of upgrades to deploying ships and development of EMI solution for the deploying strike group. This funding will be used to evaluate and mitigate potential EMI problems that may be introduced as the fleet continues to field additional variants of combat systems and commission new ships. Timely development of EMI solutions restores combat capability lost due to EMI. In theater requirements demand an acceleration of the development of EMI solutions & prototype hardware (in theater) in order to prompt EMI mitigation. Evaluation of short-term and long-term EMI fix evaluation on deploying ships is required to determine optimum EMI solution. Funds requested support the procurement and installation of EMI Solutions within 12 months for strike groups and independent deployers. Higher operating tempo and incremental costs associated with increased pace of Fleet Deployments drive an accelerated response to the development of EMI Fixes which then supports higher usage of equipment (rate of return) and extends communication capabilities.</p>			
Accomplishments/Planned Programs Subtotals	1.956	8.558	3.627

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

An acquisition strategy is not required.

E. Performance Metrics

Performance metrics will consist of quarterly program reviews.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605866N: <i>Navy Space & Electr Warfare</i> <i>Supt</i>	PROJECT 0739: <i>Navy C2 Top Level</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0739: <i>Navy C2 Top Level</i>	0.550	0.655	0.601	-	0.601	0.586	0.594	0.595	0.595	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 provides analysis of both Fleet requirements and research and development technology, to develop top-level plans and space systems in the Space and Electronic Warfare (SEW) mission area. The Space and Electronic Warfare Studies and Analysis Program (SEWSAP) supports analyses of Fleet requirements and research and development technology to develop top-level plans for operating Navy Command, Control, Communications, Intelligence, Surveillance and Reconnaissance (C4ISR) and space systems in the SEW mission area.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Navy C2 Top Level	0.550	0.655	0.601
Articles:	0	0	0
FY 2010 Accomplishments:			
Initiated and completed studies supporting resource and requirement decisions in the Planning, Programming, and Budgeting Execution (PPBE) System; FORCENet Fleet experiments; FORCENet Architecture selection; evaluation of Tactics, Techniques and Procedures (TTP); alignment of Science and Technology (S&T) and Research, Development, Test, and Evaluation (RDT&E) efforts with FORCENet requirements; evaluation and selection of Modeling and Simulation (M&S) tools and scenarios.			
SEWSAP (1) applied previously-developed models and analytical methods to identify areas of highest sensitivity in Command, Control, Communications (C3) performance, (2) extend previous architectural work on Naval operational functions and networks to detailed analyses of C3 and network requirements and, (3) extend previous system engineering results to newly emerging implementation issues.			
FY 2011 Plans:			
Initiate studies supporting resource and requirement decisions in the PPBE System. Conduct FORCENet Fleet experiments; FORCENet Architecture selection; evaluation of TTP and Research, Development, Test, and Evaluation (RDT&E) efforts with FORCENet requirements. Begin evaluation of M&S tools and scenarios.			
FY 2012 Plans:			
Continue to initiate and complete studies supporting resource and requirement decisions in the PPBE System. Conduct FORCENet Fleet experiments, FORCENet Architecture selection, and evaluate TTP and Research, Development, Test, and Evaluation (RDT&E) efforts with FORCENet requirements. Complete evaluation of M&S tools and scenarios.			
Accomplishments/Planned Programs Subtotals	0.550	0.655	0.601

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605866N: <i>Navy Space & Electr Warfare</i> <i>Supt</i>	PROJECT 0739: <i>Navy C2 Top Level</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

An acquisition strategy is not required.

E. Performance Metrics

Conduct studies and report plans and analysis of Fleet requirements for operating Navy C4ISR and space systems in the space and electronic warfare mission area.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605867N: <i>Space & Elec War Surv/Recon</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	19.338	19.700	7.642	-	7.642	12.221	17.516	17.820	18.125	Continuing	Continuing
1034: <i>TAC SAT Recon Office</i>	19.338	19.700	7.642	-	7.642	12.221	17.516	17.820	18.125	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Link Crimson program was congressionally chartered in 1977 (updated in 1980) to oversee the tactical use of reconnaissance satellites. The program rapidly develops (1-2 years) prototype systems, sensors, and software that exploit space systems to support tactical Fleet problems. Additionally, Link Crimson focuses on elements of National Intelligence Surveillance and Reconnaissance (ISR) systems and National-Tactical Integration operations to rapidly fill tactical capability gaps via improved, fused, all-source products at multiple security levels. Link Crimson also supports and participates in fleet exercises, which provide the venue for testing and demonstrating new prototype capabilities and enhancements to existing programs into which R&D efforts transition.

This program supports the operations and installations required for general research and development use. Program baseline funds will address research and development into potential unmanned vehicles, irregular warfare, anti-piracy, strike, information operations, battle space and maritime domain awareness (anti-submarine warfare and anti-surface warfare), fusion, visualization, ballistic missile defense (BMD) threats and cross-domain and cyber solutions. Additional information is held at a higher classification.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	20.747	19.700	20.001	-	20.001
Current President's Budget	19.338	19.700	7.642	-	7.642
Total Adjustments	-1.409	-	-12.359	-	-12.359
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-1.326	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	-12.333	-	-12.333
• Section 219 Reprogramming	-0.049	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.026	-	-0.026
• Congressional General Reductions Adjustments	-0.034	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*
BA 6: *RDT&E Management Support*

R-1 ITEM NOMENCLATURE

PE 0605867N: *Space & Elec War Surv/Recon*

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605867N: <i>Space & Elec War Surv/Recon</i>	PROJECT 1034: <i>TAC SAT Recon Office</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1034: <i>TAC SAT Recon Office</i>	19.338	19.700	7.642	-	7.642	12.221	17.516	17.820	18.125	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Link Crimson program was congressionally chartered in 1977 (updated in 1980) to oversee the tactical use of reconnaissance satellites. The program rapidly develops (1-2 years) prototype systems, sensors, and software that exploit space systems to support tactical Fleet problems. Additionally, Link Crimson focuses on elements of National Intelligence Surveillance and Reconnaissance (ISR) systems and National-Tactical Integration operations to rapidly fill tactical capability gaps via improved, fused, all-source products at multiple security levels. Link Crimson also supports and participates in fleet exercises, which provide the venue for testing and demonstrating new prototype capabilities and enhancements to existing programs into which R&D efforts transition.

This program supports the operations and installations required for general research and development use. Program baseline funds will address research and development into potential unmanned vehicles, irregular warfare, anti-piracy, strike, information operations, battle space and maritime domain awareness (anti-submarine warfare and anti-surface warfare), fusion, visualization, ballistic missile defense (BMD) threats and cross-domain and cyber solutions. Additional information is held at a higher classification.

The program exploits all national and service sensor systems to improve tactical support to fleet operational commanders. Project also supports equipment upgrades, training and fleet exercises, which provide the venue for testing modifications to existing programs.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: TAC SAT Recon Office	19.338	19.700	7.642
Articles:	0	0	0
FY 2010 Accomplishments:			
Joint Exercise/Training			
Precision Strike/Mission Planning			
Anti-Submarine Warfare			
Improved Info. Management (Dissemination/Exploitation/Fusion/Visualization)			
Battlespace and Maritime Domain Awareness			
Support to Mine/Littoral/Expeditionary/Irregular Warfare/Anti-Piracy			
Information Operations/GWOT and Cyber			
Ballistic Missile Defense (BMD)			
FY 2011 Plans:			
Joint Exercise/Training			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605867N: <i>Space & Elec War Surv/Recon</i>	PROJECT 1034: <i>TAC SAT Recon Office</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Precision Strike/Mission Planning Anti-Submarine Warfare Improved Info. Management (Dissemination/Exploitation/Fusion/Visualization) Battlespace and Maritime Domain Awareness Support to Mine/Littoral/Expeditionary/Irregular Warfare/Anti-Piracy Information Operations/GWOT and Cyber Ballistic Missile Defense (BMD)			
<i>FY 2012 Plans:</i>			
Anti-Submarine Warfare (ASW) / Mine Warfare (MIW) Maritime Domain Awareness (MDA) and Battlespace Awareness (BA) Irregular Warfare / Overseas Contingency Operations (OCO) Anti-Surface Warfare (Anti-Piracy, Counter UAV) Range of Operations C2 (satellite-denied operations) Information Dominance (Information Operations) Ballistic Missile Defense (BMD)			
Accomplishments/Planned Programs Subtotals	19.338	19.700	7.642

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• O&M,N/1C3C: <i>Space Systems & Surveillance</i>	0.230	0.231	0.229	0.000	0.229	0.233	0.237	0.240	0.247	Continuing	Continuing

D. Acquisition Strategy
An acquisition strategy is not required.

E. Performance Metrics
Performance will be evaluated quarterly.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE								
1319: <i>Research, Development, Test & Evaluation, Navy</i>			PE 0605873M: <i>Marine Corps Program Wide Supt</i>								
BA 6: <i>RDT&E Management Support</i>											
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	18.877	17.721	25.655	-	25.655	25.572	26.149	28.093	28.554	Continuing	Continuing
0030: <i>Studies & Analysis/MC</i>	6.102	6.555	6.642	-	6.642	6.833	6.976	7.121	7.238	Continuing	Continuing
0033: <i>OT&E Support</i>	3.816	3.681	7.944	-	7.944	8.090	8.244	8.406	8.543	Continuing	Continuing
2330: <i>Chem Bio Consequence Mgmt</i>	4.168	3.139	6.661	-	6.661	6.040	6.222	7.761	7.889	Continuing	Continuing
2930: <i>Phase 0 Activities</i>	3.994	4.346	4.408	-	4.408	4.609	4.707	4.805	4.884	Continuing	Continuing
9999: <i>Congressional Adds</i>	0.797	-	-	-	-	-	-	-	-	0.000	.797

A. Mission Description and Budget Item Justification

This program element (PE) provides the analytical foundation for the Marine Corps Studies System (MCSS), including mandated Mission Area Analyses and Cost and Operational Effectiveness Analyses. The MCSS is the front end of the Marine Corps' acquisition system. This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installation required for general research and development use.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	19.650	17.721	21.836	-	21.836
Current President's Budget	18.877	17.721	25.655	-	25.655
Total Adjustments	-0.773	-	3.819	-	3.819
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.292	-			
• SBIR/STTR Transfer	-0.452	-			
• Program Adjustments	-	-	3.981	-	3.981
• Rate/Misc Adjustments	-	-	-0.162	-	-0.162
• Congressional General Reductions Adjustments	-0.029	-	-	-	-

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 9999: *Congressional Adds*

FY 2010	FY 2011

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
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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 0605873M: <i>Marine Corps Program Wide Supt</i>
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Congressional Add Details (\$ in Millions, and Includes General Reductions)

Congressional Add: *Global Supply Chain Management*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

	FY 2010	FY 2011
	0.797	-
	0.797	-
	0.797	-

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 0030: <i>Studies & Analysis/MC</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0030: <i>Studies & Analysis/MC</i>	6.102	6.555	6.642	-	6.642	6.833	6.976	7.121	7.238	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Project funds Marine Corps Studies System (MCSS). Supports studies and analyses approved for execution in the annual Marine Corps Studies System Master Plan (MCSSMP) including mandated Mission Area Analyses (MAAs), Milestone A, and Pre-Milestone A (Conceptual) Analysis of Alternatives (AoAs), technology assessments, force structure analysis, weapons systems analysis, concept development and analysis, logistics, feasibility and cost benefits, training assessments, and scenario development. Supports the Marine Corps Logistics, the Expeditionary Force Development System (EFDS), and the Combat Development Process (CDP). Mission Area Analyses (MAA) provide quantitative and qualitative information utilized by decision makers to initiate improvements in operational concepts, doctrine, force structure, education, training, and procurement.

Provide analytical documentation and support to decision makers for resolution of current and future issues identified by operating forces. Utilize Marine Corps Research University to conduct studies and analysis projects in basic and applied research and advanced technology development. Provide funds to the Naval Sea Systems Command (NAVSEA) for direct support, technical analyses, and liaison services to assure a sound bridge between the Marine Corps' role in defining Expeditionary Warfare Specialist (EXW)/Seabasing requirements and the SEA 05 role for Future Concepts and Ships Designs for amphibious ships/aircraft, Maritime Prepositioning Force (Future)(MPF (F)), High Speed Connectors, and related systems. Space and Naval Warfare Systems Center (SPAWAR) funded to support Naval Assessment Program to modify and upgrade all DoN war fighting, crisis response and support capabilities and vulnerabilities and provide baseline of future capabilities. Baseline analysis supports Mission Capability Packages (MCPs), Investment Strategy, Joint Capability Areas (JCAs), and the Naval Strategic Plan providing the DoN assessments for future force development.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Studies & Analysis/MC	6.102	6.555	6.642
Articles:	1	1	1
Description: Further integrate Operations and Analysis Division (OAD) analytical activities into a responsive, focused program of research. Study nominations are shaped to produce comprehensive and integrated analyses aligned to the Leadership's decision timelines. A 'call' for studies occurs quarterly and is targeted to a particular audience.			
FY 2010 Accomplishments: FY10 Initiated the following efforts: Maritime Prepositioned Forces Maritime Prepositioning Force Future (MPF(F)) Excursion Study; Quadrennial Defense Review (QDR) assess current and future requirements, identify programmatic and war fighting risks and benefits, recommend alternatives/adjustments to current geographic prepositioning, legacy MPF, and MPF(F) programs of record.			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 0030: <i>Studies & Analysis/MC</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<p>Explosive Hazard Capability Study: determined effective way of supporting explosive hazard reduction requirements for mobility operations within the Marine Air Ground Task Force (MAGTF) and identify the most appropriate placement of explosive ordnance disposal (EOD assets within Marine Corps Forces.</p> <p>Force Mobility Analytical Support (FMAST) III - Follow-on study to FMASTII: capture Marine Corps Type 1 equipment in FMAST vice all vehicles and rolling stock, and generate the Measures of Effectiveness (MOE) for various MAGTFs. Combine information gathered in Tasks 1 and 2 Strategic Mobility, aggregate footprint (weight, area, and volume) relative to available strategic lift and Tactical Mobility.</p> <p>Time Domain Analysis for Airspace Command and Control (C2): define Marine Aviation C2 Time Domain (TD) in quantifiable and measurable terms for the following: Real-Time (RT), Near-Real-Time (NRT), and Non-Real-Time (Non-RT), define Marine Aviation C2 Data Fusion (DF) requirements in quantifiable and measurable terms. Pythagoras II Counterinsurgency follow-on.</p> <p>Plans, Policy and Operations (PP&O), Maritime Preposition Shipping (MPS) Load out Study for II Marine Expeditionary Force (MEF) and MAGTF Core Competencies (II MEF) Naval Expeditionary Warfare (NEXW) Assessment: assessed amphibious warfare capabilities and proficiency; enabling capabilities to support smaller scale MAGTF operations. Marine Corps Training and Advisory Group(MCTAG) Deployment Analysis Study: examine operational drivers affecting deployments and implications for MCTAG in coordinating, forming, training and equipping conventional advisor and training teams. F-35 aircraft Transition and Production Model: transition from AV-8 aircraft and F-18 aircraft squadrons to F-35 squadrons.</p> <p>Unmanned Aircraft Commander (UAC) Primary Military Occupational Specialty (PMOS) Program of Instruction (POI) Study: assessed sponsor-defined courses of action (COAs) for UAS Officer POI in terms of their effectiveness in sourcing the demand for VMU UAS Officers.</p> <p>Close Combat Missiles Methodology Study: developed a multi-attribute decision model to evaluate mixes of infantry anti-armor weapons for both state-on-state warfare (typified by a significant armored threat) and hybrid conflicts (typified by a negligible armored threat). Marine Air and Ground Tactical Forces (MAGTF) Officer's Training: research and analysis to identify knowledge gaps of officers being deployed to participate in MAGTF operations.</p> <p>Optimizing Deployment of Cargo Unmanned Aerial Systems (CUAS): developed an Excel-based decision aid for optimally deploying and employing Cargo Unmanned Aerial Systems (CUAS) in a theater of operations and assessing the risk associated with operations.</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 0030: <i>Studies & Analysis/MC</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
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<p>Improvised Explosive Device Statistics (IED) Study: developed program of data, statistical, geospatial, and text content research and analysis of events in the CIDNE database to assist the U.S. Marine Corps (USMC) Operations Analysis Division (OAD) in managing the threats to Marines deployed in Afghanistan. Maintaining Marine Armor Capability until 2024: estimate research and development, procurement, and maintenance costs of the USMC candidate tank. Joint External Analysis Analytical Support Contract. Professional Staff Analytical Services Contract specialized analysts to assist with JCIDS analyses.</p> <p>Synthetic Theater Operations Research Model (STORM): with Marine Corps enhancements to STORM, STORM representative of full-spectrum capabilities of the joint force meeting the collaboration and integration goals of the Department of Defense (DoD) Modeling & Simulation (M&S) Strategic Vision.</p> <p>Combat Sample Generator (COSAGE): enhanced and improved the (COSAGE) modelitool setset to better represent ground combat in a joint, combined arms battlefield environment for 2015 and beyond. Initiate high priority studies and analyses projects approved in the FY2010 - FY2011 Marine Corps Studies System Master Plan (MCSSMP).</p> <p>FY 2011 Plans: Continue efforts initiated in previous years to include: Pythagoras II; Force Mobility Analysis Support Tool, (FMASTIII); Maintaining Marine Armor Capability until 2024; Synthetic Theater Operations Research Model (STORM); Combat Sample Generator (COSAGE); Command Control (C2) TECOM; Marine Air and Ground (MAGTF) Capabilities Metrics; Trans Sahel; Intelligence Analysis; Improvised Explosive Device Statistics Aviation Crew Seat Ration Model (IED); Optimizing Deployment of Cargo Unmanned Aerial Systems (CUAS).</p> <p>FY 11 New emerging study requirements: Aviation Crew Seat Ration Model: Develop optimization model for crew capabilities; USMC Unmanned Aerial System (UAS) Cargo Capabilities: Optimizing the Deployment of Cargo Unmanned Aerial Systems in Logistical Support Missions at the Tactical Level. Project will develop an Excel-based decision aid for optimally deploying and employing Cargo Unmanned Aerial Systems (CUAS) in a theater of operations and assessing the risk associated with such operations. Intelligence Analysis: provide an assessment tool, which can be given to military personnel in order to screen and assess a person's capacity to perform higher-level cognitive thinking as it relates to intelligence analysis skills. USMC Counter Battery Radar Capabilities; Command Control (C2) TECOM; Marine Air and Ground (MAGTF) Capabilities Metrics. Statistical Analysis of IED: develop program of data, statistical, geospatial, and text content research and analysis of events in the Combat Information Data Network Exchange (CIDNE) database to assist the U.S. Marine Corps (USMC) in managing the threats to Marines deployed in Afghanistan.</p>			
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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>		R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>		PROJECT 0030: <i>Studies & Analysis/MC</i>
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				
				FY 2010
				FY 2011
				FY 2012
<p>Initiate new studies based on USMC requirements and directed by Assistant Commandant, Marine Corps. Initiate the high priority studies and analyses projects approved in the FY2011 - FY2012 Marine Corps Studies System Master Plan (MCSSMP).</p> <p>FY 2012 Plans: Continue efforts initiated in FY 2011 to include: Joint External Analysis Analytical Support Contract. Professional Staff Analytical Services Contract specialized analysts to assist with JCIDS analyses.</p> <p>Synthetic Theater Operations Research Model (STORM): with Marine Corps enhancements to STORM, STORM representative of full-spectrum capabilities of the joint force meeting the collaboration and integration goals of the Department of Defense (DoD) Modeling & Simulation (M&S) Strategic Vision.</p> <p>Combat Sample Generator (COSAGE): enhance and improve the COSAGE model tool set to better represent ground combat in a joint, combined arms battlefield environment for 2015 and beyond.</p> <p>USMC Unmanned Aerial System (UAS) Cargo Capabilities: Optimizing the Deployment of Cargo Unmanned Aerial Systems in Logistical Support Missions at the Tactical Level. Project will develop an Excel-based decision aid for optimally deploying and employing Cargo Unmanned Aerial Systems (CUAS) in a theater of operations and assessing the risk associated with such operations; Intelligence Analysis: provide an assessment tool, which can be given to military personnel in order to screen and assess a person's capacity to perform higher-level cognitive thinking as it relates to intelligence analysis skills. USMC Counter Battery Radar Capabilities; Command Control (C2) TECOM; Marine Air and Ground (MAGTF) Capabilities Metrics.</p> <p>Statistical Analysis of IED: develop program of data, statistical, geospatial, and text content research and analysis of events in the Combat Information Data Network Exchange (CIDNE) database to assist the U.S. Marine Corps (USMC) in managing the threats to Marines deployed in Afghanistan.</p> <p>Initiate new studies based on USMC requirements and directed by Assistant Commandant, Marine Corps. Initiate the high priority studies and analyses projects approved in the FY2012 - FY2013 Marine Corps Studies System Master Plan (MCSSMP).</p>				
Accomplishments/Planned Programs Subtotals				6.102
				6.555
				6.642

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 0030: <i>Studies & Analysis/MC</i>

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 0033: <i>OT&E Support</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0033: <i>OT&E Support</i>	3.816	3.681	7.944	-	7.944	8.090	8.244	8.406	8.543	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Marine Corps Operational Test and Evaluation Activity (MCOTEA) supports the material acquisition process by managing the Marine Corps Operational Test (OT) programs for Acquisition Categories (ACAT) I through ACAT IV (less OT of manned aircraft) and performs other functions that may be directed by the Commandant of the Marine Corps. The primary purpose of Operational Test and Evaluation (OT&E) is to provide information to the Milestone Decision Authority (MDA) regarding the Operational Effectiveness (OE) and Operational Suitability (OS) of the system addressed at a decision point. MCOTEA must ensure that the Marines in the Operating Forces receive the very best possible equipment and support. MCOTEA must also ensure each system proposed for acquisition is tested adequately, evaluated objectively and reported independently.

Marine Corps Operational Test and Evaluation Activity (MCOTEA) is the only unit that provides the Marine Corps with required operational test and evaluation (OT&E) capability, ensuring the Marine Corps is compliant with laws and regulations, and ensuring that training and equipment are operationally effective, relevant, and suitable. Additionally, MCOTEA's early involvement, coordination, and oversight in developmental testing and evaluation of new combat and combat support systems ensures that our Marines are the best trained, and have the best equipment, with the lowest test costs for taxpayers. Finally, MCOTEA's support of rapid acquisitions ensures that Marines in the fight are supported with the newest and most advanced equipment, and that the Marine Corps is compliant with regulations.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: MCOTEA	3.816	3.681	4.000
Articles:	0	0	0
FY 2010 Accomplishments: MCOTEA 4 test Divisions; MAGTF, Grounds, Expeditionary and CSS had Testing done prior to MS C decisions, Full Rate Production (FRP) decisions, prior to fielding, and post-fielding as Follow On Test & Evaluation (FOT&E) as requested, though recent policy requires significant involvement even as early as Pre- MS A, which was accomplished.			
FY 2011 Plans: DOT&E/DON Policy initiatives broaden MCOTEA involvement in: focusing on starting early, being operationally realistic, and continuing throughout life cycle during the Operational and testing evaluation and will be Integrating Developmental and Operational Testing with Greater participation in Developmental Tests and RAM scoring conferences. It also will be Experimenting to learn impacts on capabilities. MCOTEA also plans on Evaluating mission context at time of fielding and Capabilities Testing while expanding use of Modeling & Simulation.			
FY 2012 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 0033: <i>OT&E Support</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
MCOTEA will be Evaluating, quantifying and reporting the operational effectiveness, suitability, and survivability of planned acquisitions to meet warfighter capabilities, and will be providing Milestone Decision Authority (MDAs) a comprehensive understanding of operational risk associated with ACAT programs.			
<p>Title: MCOTEA ENHANCEMENT</p> <p align="right">Articles:</p>	-	-	3.944 0
<p>FY 2012 Plans:</p> <p>Implement internal professional staff test and evaluation capability upgrades with advanced training in special testing methodologies. This will increase the critical in-house capability to determine unique testing sciences and evaluation methodolgies needed for efficacy in tests and evaluations of urgent in-theater capabilites. Some examples are specialized day and night optics technologies; and, specialized electronic tests for communications and computer applications in command and control areas. MCOTEA's support of rapid acquisitions ensures that Marines in the fight are supported with the newest and most advanced equipment, and that the Marine Corps is compliant with regulations.</p>			
Accomplishments/Planned Programs Subtotals	3.816	3.681	7.944

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>				PROJECT 2330: <i>Chem Bio Consequence Mgmt</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2330: <i>Chem Bio Consequence Mgmt</i>	4.168	3.139	6.661	-	6.661	6.040	6.222	7.761	7.889	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Family of Incident Response Systems (FIRS) consists of equipment, systems, and services designed to provide Weapons of Mass Destruction (WMD) incident response forces the capabilities needed to effectively respond to a terrorist attack using Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives (CBRNE). The Family of Incident Response Systems meets the mission requirements for the detection; mass casualty decontamination; force protection; responder inter-agency interoperability; C4I; urban search and rescue; medical and general support requirements needed by these forces to mitigate the effects of a CBRNE terrorist attack. The Family of Incident Response Systems relies primarily on Commercial Off-The-Shelf/Non-Developmental Items (COTS/NDI) equipment and systems that meet the particular mission requirements of Consequence Management (CM). Nuclear, Biological, and Chemical (NBC) systems are adopted if they meet the CM mission requirements. The Family of Incident Response Systems (FIRS) R&D effort allows the program to keep abreast of emerging technologies in the commercial sector and address operational capability gaps that cannot be met by commercial items.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: *FIRS: Reconnaissance Mission Area.	1.984	1.435	3.910
Articles:	0	0	0
FY 2010 Accomplishments: FIRS: Reconnaissance Mission Area includes: 1) began the assessment of emerging technologies for Toxic Industrial Chemical detection and identification in conjunction with the Department of Homeland Security and the Technical Support Working Group (TSWG) 2) completed the assessment of Hand-Held Biological Detection Systems 3) continued the transition of a Field Chemical Analytical Tool (GC/MS) 4) completed the testing and evaluation of a portable bio-aerosol sampler 5) continued the development and testing of the Chemical Biological Incident Response Force (CBIRF) Standoff Chemical Agent Detector.			
FY 2011 Plans: FIRS: Reconnaissance Mission Area includes: 1) complete the assessment of emerging technologies for Toxic Industrial Chemical detection and identification in conjunction with the Department of Homeland Security and the Technical Support Working Group (TSWG) 2) continue the transition of a Field Chemical Analytical Tool (GC/MS) 3) continue the development and testing of the Chemical Biological Incident Response Force (CBIRF) Standoff Chemical Agent Detector.			
FY 2012 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 2330: <i>Chem Bio Consequence Mgmt</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
FIRS: Reconnaissance Mission Area includes: begin to field test the person portable Gas Chromatograph Mass Spectrometer(GC/MS) 2) begin development of the next generation Standoff Chemical Agent Detector 3) begin development of next generation field detectors.				
Title: *FIRS: Search and Rescue (SAR) Mission Area.				
Articles:		0.300 0	0.150 0	-
FY 2010 Accomplishments: FIRS: Search and Rescue (SAR) Mission Area includes: 1) continued the evaluation of SAR HazMat boots that can be decontaminated 2) continued evaluation of Commercial Off the Shelf (COTS) and emerging SAR tools.				
FY 2011 Plans: FIRS: Search and Rescue (SAR) Mission Area includes: 1) complete the evaluation of SAR HazMat boots that can be decontaminated 2) complete evaluation of Commercial Off the Shelf (COTS) and emerging SAR tools.				
Title: *FIRS: Decontamination Mission Area				
Articles:		0.300 0	0.200 0	-
FY 2010 Accomplishments: FIRS: Decontamination Mission Area includes: 1) continued the development and evaluation of improved mass casualty decon equipment (flash heaters) and procedures.				
FY 2011 Plans: FIRS: Decontamination Mission Area includes: 1) complete the development and evaluation of improved mass casualty decon equipment (flash heaters) and procedures.				
Title: *FIRS: C4I Mission Area.				
Articles:		0.150 0	0.150 0	-
FY 2010 Accomplishments: FIRS: C4I Mission Area includes: 1) continued technology assessments 2) continued field user evaluations 3) continued development of prototypes.				
FY 2011 Plans: FIRS: C4I Mission Area includes: 1) complete technology assessments 2) complete field user evaluations 3) complete development of prototypes.				
Title: *FIRS: Force Protection Mission Area				
Articles:		0.698 0	1.004 0	2.751 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 2330: <i>Chem Bio Consequence Mgmt</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p><i>FY 2010 Accomplishments:</i> FIRS: Force Protection Mission Area includes: 1) continued the transition of the Improved Level A Protective Ensemble developed in concert with Technical Support Working Group (TSWG) 2) completed the radiation hardness survey and assessment of COTS CM equipment 3) continued the development and validation of an electronic filter matrix from military and commercial filter testing data 4) continued the testing and evaluation of a hydration system in conjunction with the Army 5) continued the testing and evaluation of the M-53 mask as a system with Commercial Self Contained Breathing Apparatus and Powered Air Purifying Respirators.</p> <p><i>FY 2011 Plans:</i> FIRS: Force Protection Mission Area includes: 1) complete the transition of the Improved Level A Protective Ensemble developed in concert with Technical Support Working Group (TSWG) 2) continue the development and validation of an electronic filter matrix from military and commercial filter testing data 3) complete the testing and evaluation of a hydration system in conjunction with the Army 4) complete the testing and evaluation of the M-53 mask as a system with Commercial Self Contained Breathing Apparatus and Powered Air Purifying Respirators.</p> <p><i>FY 2012 Plans:</i> FIRS: Force Protection Mission Area includes: 1) continue the development and validation of an electronic filter matrix from military and commercial filter testing data 2) begin testing and certification of the next generation Improved Chemical Garment (NFPA Class 2) 3) testing of a new breathable lightweight chemical biological protective undergarment to NFPA Class 3 4) testing of the universal hose connection between the M53 mask and COTS existing commercial Powered Air Purifying Respirators</p>				
<p><i>Title:</i> *FIRS: Medical Mission Area</p> <p align="right"><i>Articles:</i></p>		0.300 0	0.200 0	-
<p><i>FY 2010 Accomplishments:</i> FIRS: Medical Mission Area includes: 1) continued development of a Standoff patient triage tool 2) completed the development and testing of gloves with increased dexterity.</p> <p><i>FY 2011 Plans:</i> FIRS: Medical Mission Area includes: 1) complete the development of a Standoff patient triage tool.</p>				
<p><i>Title:</i> *FIRS: General Support Mission Area</p> <p align="right"><i>Articles:</i></p>		0.436 0	-	-
<i>FY 2010 Accomplishments:</i>				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
FIRS: General Support Mission Area includes: 1) completed the prototyping and testing of modified COTS and Government Off-the-Shelf (GOTS) vehicles for the deployment of incident response equipment (Explosive Ordnance Disposal (EOD), SAR).			
Accomplishments/Planned Programs Subtotals	4.168	3.139	6.661

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• 652200: <i>Field Medical Equipment-FIRS</i>	3.406	3.290	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	140.396

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 2930: <i>Phase 0 Activities</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2930: <i>Phase 0 Activities</i>	3.994	4.346	4.408	-	4.408	4.609	4.707	4.805	4.884	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Pre-Phase A Activities include assessments, surveys, and planning activities in support of the requirements generation system to mature, limit, clarify, and define requirements before competition for resources in the POM process and transition to acquisition management. This effort will complement the currently funded Marine Corps Systems Command (MCSC) Phase A Activities line to pursue a limited range of items on a priority basis, examining critical issues and alternatives.

Examples of activities include but are not limited to (1) development of Operational Mode Summaries, Mission Profiles, Concepts of Employment and Acquisition Objectives, (2) mapping between legacy systems and replacements, (3) examining integration and family of systems architectural issues, (4) performing Doctrine, Organization, Training, Equipment, Support, Facilities (DOTESF) assessments and providing other key support for the Universal Needs Statement (UNS) process, (5) base-lining POM initiatives, (6) planning requirements support of evolutionary acquisition, (7) facilitating user/advocate interaction to better understand what is needed and how it will be used, and (8) supporting the Marine Requirements Oversight Council (MROC)-directed tailoring Authorized Acquisition Objective process.

Marine Corps Combat Development Command (MCCDC) averages approximately 62 Urgent Needs Statements (UNS) requests per year addressing new requirements, of which approximately 20% require expedited processing. Quick reaction assessment and planning is likely to support requirements emerging from current real world operations. Clear Facilities, a Command Element (CE) Army Research Laboratory (ARL) item (supported by the Marine Corps Ground Combat Element (GCE)) requiring a continuum of materiel solutions (family of systems) to enable lethal clearing of a broad range of man-made structures in multiple environments/tactical situations typifies a requirement needing pre-Phase A support.

Supporting activities have centered on decomposition of the mission into 460 specific tasks accompanied by development of an operational concept, objectives and key performance parameters, and warfighter prioritization. The end product will be a requirements road map. The end state will be a process and product to guide both POM and acquisition activities. These activities do not overlap or conflict with Mission Area Analysis and Analysis of Alternatives funded within the MCCDC Studies and Analysis (S&A) program, MCSC Phase A Activities, Marine Corps Warfighting Lab (MCWL) experimentation or Science and Technology (S&T) activities. Pre-phase A Activities allow high priority requirements to move ahead in advance of funding decisions for specific programs, provide a better capability to react to emerging requirements and improve the quality of initiatives brought to the Program Objective Memorandum (POM) process.

Through front-end assessment, relatively modest funding can be leveraged into significant cost and schedule savings, bringing needed capabilities to the operating forces sooner and cheaper. Each POM cycle provides examples of initiatives that are unfunded or delayed by an immature requirement or understanding of alternatives. In other cases the initiative is funded but the acquisition cycle stretches out until the requirement is better understood. Pre Phase A facilitates a timely and more efficient process.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 2930: <i>Phase 0 Activities</i>
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Phase A (previously known as Phase 0) Activities consist of a series of interrelated activities of the acquisition process designed to investigate potential material solutions to validate needs, estimate program costs, support sound business decisions, correct inherent disconnects between the Programming, Planning, Budgeting and Execution (PPBE) cycle, the Combat Development and Acquisition Management Systems, and prevent undue delays in pursuing priority requirements. The process supports Commanding General (CG), MCCDC and Commander, Marine Corps Systems Command (COMMARCORSYSCOM) by providing funding to priority programs, thus allowing for the examination of concepts and alternatives to support an orderly transition from requirements to initiatives and initiatives to funded programs. This will permit the POM process to focus on activities of evaluating, prioritizing and integrating rather than defining and resolving raw, immature requirements.

Phase A activities "jump start" high priority programs of the acquisition process. Furthermore, since 70% of a program's life cycle cost is determined during Phase A, this initiative will put resources to work where the return on investment is the greatest. Typical studies conducted on Phase A activities include, but are not limited to Market Surveys, Business Case Analysis (BCA), Cost as an Independent Variable (CAIV) analysis, Life Cycle Cost Estimates, Cost Comparison Analysis, Acquisition Strategies, Trade-off Analysis in lieu of an Analysis of Alternatives.

To satisfy the emerging requirements, the Deputy Commandant for Combat Development is leading the Marine Expeditionary Force Future Vehicle (MEFFV) effort to conduct Joint Capability Integration and Development System analysis to establish a capabilities framework specifically tailored to assess technologies for transition to the Marine Air Ground Task Force (MAGTF). MEFFV efforts are directed at capability refinement and integration, analysis of multiple concepts, determining technology objectives, and continued development of Initial Capabilities Documents (ICDs) and Capabilities Development Documents supporting "spin-out" technology transitions. This budget item supports combat development activities supporting the three Marine Requirements Oversight Council (MROC) priorities in compliance with JROC and USD AT&L guidance to participate in a Joint Program with the Army's Future Combat Systems Program.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
<p>Title: *Phase A Activities</p> <p align="right">Articles:</p> <p>FY 2010 Accomplishments: Phase A Activities - Initiated, assisted and completed Phase A activities of high priority programs during their concept refinement and in some cases their technology development phases in the areas of Business Case Analysis, Trade Studies, Economic Analysis, Life Cycle Cost Estimates and Market Research Studies in support of the following efforts: Electronic Records Management, Net Enabled Command Capability, Target Processing, Ground Based Air Defense, Ground Based Operational Surveillance, Optical Systems, Route Reconnaissance and Clearance, Mortar Fire Control and Indirect Fire, Ground Radio and Maintenance and the Squad Immersive Training Environment.</p> <p>FY 2011 Plans: Phase A Activities - Initiate, assist and complete Phase A activities of high priority programs during their concept refinement and in some cases their technology development phases in the areas of Business Case Analysis, Trade Studies, Economic Analysis, Life Cycle Cost Estimates and Market Research Studies in support of the following efforts: Electronic Records Management, Net</p>	<p>3.994</p> <p>0</p>	<p>4.346</p> <p>0</p>	<p>4.408</p> <p>0</p>

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>		PROJECT 2930: <i>Phase 0 Activities</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<p>Enabled Command Capability, Target Processing, Ground Based Air Defense, Ground Based Operational Surveillance, Optical Systems, Route Reconnaissance and Clearance, Mortar Fire Control and Indirect Fire, Ground Radio and Maintenance and the Squad Immersive Training Environment.</p> <p><i>FY 2012 Plans:</i> Phase A Activities - Initiate, assist and complete Phase A activities of high priority programs during their concept refinement and in some cases their technology development phases in the areas of Business Case Analysis, Trade Studies, Economic Analysis, Life Cycle Cost Estimates and Market Research Studies in support of the following efforts: Networking On-The-Move, Targeting Studies and Analysis, Tank Reset and Sustainment, AAVC7, Autonomic Logistics, Visual Info Systems and Medium Tactical Vehicle configuration.</p>					
Accomplishments/Planned Programs Subtotals			3.994	4.346	4.408
C. Other Program Funding Summary (\$ in Millions)					
N/A					
D. Acquisition Strategy					
N/A					
E. Performance Metrics					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605873M: <i>Marine Corps Program Wide Supt</i>	PROJECT 9999: <i>Congressional Adds</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	0.797	-	-	-	-	-	-	-	-	0.000	.797
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Congressional Add for Center for Advanced Logistics Management (CALM) will be utilized to establish a logistics faculty and curriculum at Albany State University that would ultimately provide a training pipeline for students wishing to work in the logistics field at Marine Corps Logistics Command (LOGCOM) in Albany, GA and at Marine Corps Systems Command (MARCORSYSCOM) locations.

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

Congressional Add: Global Supply Chain Management	FY 2010	FY 2011
	0.797	-
FY 2010 Accomplishments: Funding will provide a training pipeline for students wishing to work in the logistics field at Marine Corps Logistics Command (LOGCOM) in Albany, GA and at Marine Corps Systems Command (MARCORSYSCOM) locations.		
Congressional Adds Subtotals	0.797	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0305885N: <i>Tactical Cryptologic Activities</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	2.454	1.859	2.764	-	2.764	2.795	2.835	1.877	1.913	Continuing	Continuing
0037: <i>TACT COMBAT OPER SYS</i>	2.454	1.859	2.764	-	2.764	2.795	2.835	1.877	1.913	Continuing	Continuing

A. Mission Description and Budget Item Justification

This is a continuing program that will provide advanced technologies and capabilities to current Electronic Warfare (EW) / Electronic Intelligence (ELINT) System Programs of Record (POR). The program develops concepts of data / information exchange within the Global Information Grid (GIG) as envisioned by Chief of Naval Operations (CNO) and outlined within the FORCEnet concept. To comply with the intent of the GIG, this program addresses compression, transmission, decompression, re-compression and long term storage of targeted data / information without degradation. This program will become an enabler for future capabilities such as remote operation of surface, subsurface, and air EW/ELINT open architecture PORs. A holistic approach to data / information format, processing transmission, and storage will require developments in antenna technology, communications capabilities, operational concepts, and software development.

COMTENTHFLT Maritime Operations Center (MOC): The Maritime Operations Center (MOC) visualization system provides the common operational picture (COP) in support of the commander mission requirements. The system design permits the connection of numerous data feeds at various security classification levels in order to project and adjust the COP as required on multiple output displays electronically.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	2.454	1.859	1.886	-	1.886
Current President's Budget	2.454	1.859	2.764	-	2.764
Total Adjustments	-	-	0.878	-	0.878
• Congressional General Reductions					
• Congressional Directed Reductions					
• Congressional Rescissions	-	-			
• Congressional Adds					
• Congressional Directed Transfers					
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	0.888	-	0.888
• Rate/Misc Adjustments	-	-	-0.010	-	-0.010

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0305885N: <i>Tactical Cryptologic Activities</i>	PROJECT 0037: <i>TACT COMBAT OPER SYS</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0037: <i>TACT COMBAT OPER SYS</i>	2.454	1.859	2.764	-	2.764	2.795	2.835	1.877	1.913	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This is a continuing program that will provide advanced technologies and capabilities to current Electronic Warfare (EW) / Electronic Intelligence (ELINT) System Programs of Record (POR). The program develops concepts of data / information exchange within the Global Information Grid (GIG) as envisioned by Chief of Naval Operations (CNO) and outlined within the FORCENet concept. To comply with the intent of the GIG, this program addresses compression, transmission, decompression, re-compression and long term storage of targeted data / information without degradation. This program will become an enabler for future capabilities such as remote operation of surface, subsurface, and air EW/ELINT open architecture PORs. A holistic approach to data / information format, processing transmission, and storage will require developments in antenna technology, communications capabilities, operational concepts, and software development.

COMTENTHFLT Maritime Operations Center (MOC): The Maritime Operations Center (MOC) visualization system provides the common operational picture (COP) in support of the commander mission requirements. The system design permits the connection of numerous data feeds at various security classification levels in order to project and adjust the COP as required on multiple output displays electronically.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: TACT COMBAT OPER SYS	2.454	1.859	2.764
Articles:	0	0	0
FY 2010 Accomplishments: Developed concepts of data/information exchange within the Global Information Grid (GIG) as envisioned by Chief of Naval Operations (CNO) and outlined within the FORCENet concept.			
FY 2011 Plans: Develop concepts of data/information exchange within the Global Information Grid (GIG) as envisioned by Chief of Naval Operations (CNO) and outlined within the FORCENet concept.			
FY 2012 Plans: Develop concepts of data/information exchange within the Global Information Grid (GIG) as envisioned by Chief of Naval Operations (CNO) and outlined within the FORCENet concept.			
Continuation of the Maritime Operations Center (MOC) visualization system. This system will provide the common operational picture (COP) in support of the Commander's mission requirements. The system design permits the connection of numerous			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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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 0305885N: <i>Tactical Cryptologic Activities</i>	PROJECT 0037: <i>TACT COMBAT OPER SYS</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
data feeds at various security classification levels in order to project and adjust the COP as required on multiple output displays electronically.			
Accomplishments/Planned Programs Subtotals	2.454	1.859	2.764

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not required.

E. Performance Metrics

Provide advanced technologies and capabilities to current Electronic Warfare/Electronic Intelligence System Programs of Record (POR).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>				PE 0804758N: <i>Service Support To JFCOM, JNTC</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	4.049	4.260	-	-	-	-	-	-	-	0.000	8.309
3152: <i>Service Support to JFCOM/ JNTC</i>	4.049	4.260	-	-	-	-	-	-	-	0.000	8.309

A. Mission Description and Budget Item Justification

Per the FY 2005 National Defense Authorization Act, Navy Joint National Training Capability (JNTC) RDT&E is managed by US Fleet Forces Command (USFF) Joint & Sustainment Branch (N71) from P/E 0804758N. This management reflects the decentralized execution of JNTC RDT&E from JFCOM. Throughout the FYDP, these funds will continue to be managed and executed by USFF N71.

The Navy continues to develop joint training technologies that will play a crucial role in it's ability to address current and future joint operational training requirements. Navy program activities include conducting research, development, test and evaluation and cross-service architecture certification on Navy capable systems, developing architectures and roadmaps to ensure that service instrumentation follows a common standard, and researching and assessing Navy mission rehearsal, Joint Semi-Automated Forces (JSAF), Joint National Training Capability (JNTC) Joint Live-Virtual Constructive (JLVC) Federation Object Model (FOM) Interoperabilities.

The Navy will further develop capabilities that integrate live, virtual, and constructive elements into a seamless joint training environment. Using a scientific and phased approach, Navy will leverage and research new technologies and methods, based upon focused joint operational training requirements, that provide a crucial technology-based foundation supporting all current and "to be" Navy joint training capabilities. Available commercial-off-the-shelf (COTS) and government -off-the-shelf (GOTS) networked information technologies and collaborative planning tools will be leveraged to provide improved net-centric joint training capability. Navy will lead the collaboration process to identify, collect and validate the requirements in order to design and develop the modeling and simulation capabilities that address the shortfalls in current abilities to support Joint Task training to standards.

The Navy Joint Live-Virtual Constructive (JLVC) Federation Object Model (FOM) development program is the primary means of providing a persistent and interoperable network among the Navy, Joint and Coalition federation components.

The Navy JNTC RDT&E Program efforts directly support the Unified Command Plan (UCP) series and is aligned with the DoD Information Operations (IO) Roadmap.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0804758N: <i>Service Support To JFCOM, JNTC</i>
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B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	4.180	4.260	4.355	-	4.355
Current President's Budget	4.049	4.260	-	-	-
Total Adjustments	-0.131	-	-4.355	-	-4.355
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.130	-			
• Program Adjustments	-	-	-4.355	-	-4.355
• Congressional General Reductions Adjustments	-0.001	-	-	-	-

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0804758N: <i>Service Support To JFCOM, JNTC</i>	PROJECT 3152: <i>Service Support to JFCOM/JNTC</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3152: <i>Service Support to JFCOM/JNTC</i>	4.049	4.260	-	-	-	-	-	-	-	0.000	8.309
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

BASE REQUEST:

Navy Warfare Development Command (NWDC) provides dedicated Joint Semi-Automated Forces (JSAF) software via development, configuration management, verification and validation and engineering management to ensure that Fleet and Joint requirements are incorporated. NWDC also supports the development of standards in networking, simulation federation, and tactical system interfaces for Fleet Synthetic Training (FST) interoperability to meet training objectives. The JLVC NCTE FOM program provides a persistent and interoperable network among the Navy, Joint and Coalition federation components.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: JSAF Improvement Program	2.654	2.436	-
Articles:	0	0	
Description: Accomplishments include the stability and robustness improvements to support Fleet Synthetic Training. Improved capability of Automated Status Boards and Link 16 Information Display for the Tactical Training Group Schoolhouses. Improved capability of Class III and V Logistics, TBMCS mission support interface, and Intel fidelity (ELINT) in support of JNTC and NTF/PACOM requirements. Improved capability in support of virtual and constructive users such as: Manned Flight Systems H-60R and H-60S trainers, JLVC, and NWDC.			
FY 2010 Accomplishments: Fleet Synthetic Training (FST) utilizes interoperable shore-based and ship-embedded simulation and stimulation systems linked by distributed networks, using JSAF as the core constructive environment. FST capability shortfalls addressed in FY10: BMD integration with live system components, IO; Maritime Interceptions/MDA; IWO/EW; Emergent Requirements. The JSAF Improvement Program delivered a fully operation JSAF Version 4.0 / 4.1 simulation system. The JLVC NCTE FOM Development program delivered the FY10 Interoperability Guide Update.			
FY 2011 Plans: Navy will further develop capabilities to address ASW improvements, information operations, BLUFOR capability representation including Littoral Combat Ship (LCS), P-8A, Surface Warfare Enterprise Advanced Capability Build (ACB) -12/14 development and integration and emergent threats. Navy will further address additional Coalition Partner Integration, LCS Shore Based Training			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0804758N: <i>Service Support To JFCOM, JNTC</i>	PROJECT 3152: <i>Service Support to JFCOM/JNTC</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Facility (SBTF) integration, Combined Armed Forces (CAF) - Distributed Mission Operations (DMO) integrations and Korean Simulation Battle Center (KSBC) integration.				
Title: JNTC/JLVC Navy Training FOM Support				
Description: Accomplishments include the stability and robustness improvements to support Fleet Synthetic Training. Improved capability of Automated Status Boards and Link 16 Information Display for the Tactical Training Group Schoolhouses. Improved capability of Class III and V Logistics, TBMCS mission support interface, and Intel fidelity (ELINT) in support of JNTC and NTF/PACOM requirements. Improved capability in support of virtual and constructive users such as: Manned Flight Systems H-60R and H-60S trainers, JLVC, and NWDC.				
FY 2010 Accomplishments: Fleet Synthetic Training (FST) utilizes interoperable shore-based and ship-embedded simulation and stimulation systems linked by distributed networks, using JSAF as the core constructive environment. FST capability shortfalls addressed in FY10: BMD integration with live system components, IO; Maritime Interceptions/MDA; IWO/EW; Emergent Requirements. The JSAF Improvement Program delivered a fully operation JSAF Version 4.0 / 4.1 simulation system. The JLVC NCTE FOM Development program delivered the FY10 Interoperability Guide Update.				
FY 2011 Plans: Navy will further develop capabilities to address ASW improvements, information operations, BLUFOR capability representation including Littoral Combat Ship (LCS), P-8A, Surface Warfare Enterprise Advanced Capability Build (ACB) - 12/14 development and integration and emergent threats. Navy will further address additional Coalition Partner Integration, LCS Shore Based Training Facility (SBTF) integration, Combined Armed Forces (CAF) - Distributed Mission Operations (DMO) integrations and Korean Simulation Battle Center (KSBC) integration.				
Articles:		1.395 0	1.824 0	-
Accomplishments/Planned Programs Subtotals		4.049	4.260	-
C. Other Program Funding Summary (\$ in Millions)				
N/A				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0804758N: <i>Service Support To JFCOM, JNTC</i>	PROJECT 3152: <i>Service Support to JFCOM/JNTC</i>

E. Performance Metrics

- 1) Navy Warfare Development Command (NWDC) will produce one JSAF software release to include documentation; will design and implement upgrades to JSAF consistent with approved requirements and CRs and document the effects of JSAF capabilities (robustness) and stability. Will design, implement, test, and integrate JSAF enhancements in accordance with requirements.
- 2) NWDC will produce one Navy Training FOM (NTF) release to include applicable documentation updates for the Guidance, Rational, and Interoperability Manual (GRIM) and Federation Agreement document (FAD). Will implement JSAF capability enhancements to support evolving joint and Coalition training requirements.
- 3) NWDC will deliver one NCTE Interoperability Guide update to be promulgated to all NCTE users.
- 4) Facilitate integration by providing dedicated support to the effort, improving the quality of participation and documentation of Navy efforts in the JNTC. Refine and mature the Navy Training Federation Object Model (NTF), it is improving interoperability and integration with other services and the Joint community. Provides a standardized Federation Object Model (FOM) for integration across the Navy training simulations.
- 5) Current Joint Live-Virtual-Constructive (JLVC) and other federation simulation distribution is accomplished by tying simulation data to multicast groups. This is neither a scalable solution nor is it an effective one as federates are not able to publish and subscribe with fine enough precision. The Simulation Aware Software Router will address this shortcoming, and additionally provide a flexible solution for federating heterogeneous networks and on-the-wire protocols without forcing all federates onto a single, uniform, lowest common denominator solution for each training event. Ultimately, a simulation aware router will allow simulation users to optimize the network for both simulation scalable traffic and for voice and Command, Control, Communications, (Computers), Intelligence (C4I) traffic.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0909980N: <i>Judgment Fund Reimbursement</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	0.076	-	-	-	-	-	-	-	-	0.000	.076
0000: <i>UNDIST</i>	0.076	-	-	-	-	-	-	-	-	0.000	.076

A. Mission Description and Budget Item Justification

Funding is to reimburse the Department of Treasury for a judgment fund bill.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	0.076	-	-	-	-
Total Adjustments	0.076	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.076	-			
• SBIR/STTR Transfer	-	-			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0909980N: <i>Judgment Fund Reimbursement</i>	PROJECT 0000: <i>UNDIST</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0000: <i>UNDIST</i>	0.076	-	-	-	-	-	-	-	-	0.000	.076
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Not Applicable

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
<i>Title:</i> Judgment Fund	0.076	-	-
<i>Articles:</i>	0		
<i>FY 2010 Accomplishments:</i> Funding is to reimburse the Department of Treasury for a judgment fund bill.			
Accomplishments/Planned Programs Subtotals	0.076	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Not applicable

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0909999N: <i>Cancelled Account Adjustments</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	0.534	-	-	-	-	-	-	-	-	0.000	.534
0000: <i>UNDIST</i>	0.534	-	-	-	-	-	-	-	-	0.000	.534

A. Mission Description and Budget Item Justification

Funding is to reimburse the Department of Treasury for cancelled account liabilities.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	0.534	-	-	-	-
Total Adjustments	0.534	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.534	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0909999N: <i>Cancelled Account Adjustments</i>	PROJECT 0000: <i>UNDIST</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0000: <i>UNDIST</i>	0.534	-	-	-	-	-	-	-	-	0.000	.534
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Funding is to reimburse the Department of Treasury for a judgment fund bill.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Cancelled Account Liabilities			
Articles:	0.534 0	-	-
FY 2010 Accomplishments: Reimbursed the Department of Treasury for a judgment fund bill.			
Accomplishments/Planned Programs Subtotals	0.534	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Not applicable.