Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 6: RDT&E Management Support

R-1 ITEM NOMENCLATURE

PE 0605853N: Management, Technical & Intl Supt

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To	Total Cost			
Total Program Element	49.255	60.181	58.329	0.000	58.329	59.000	60.159	60.842	61.978	Continuing	Continuing			
0149: International Coop RDT&E	3.912	5.603	5.273	0.000	5.273	4.716	4.864	4.474	4.548	Continuing	Continuing			
1767: Naval War Col Strategic Studies Supt	4.115	4.607	4.438	0.000	4.438	4.506	4.573	4.666	4.753	Continuing	Continuing			
2221: JT Mission Assessment Studies	21.741	25.223	27.963	0.000	27.963	28.484	28.875	29.378	29.896	Continuing	Continuing			
3025: Mid-Range Financial Improvement Plans	1.532	1.587	1.436	0.000	1.436	1.532	1.566	1.601	1.635	Continuing	Continuing			
3028: Operations Integration Group	0.000	4.418	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.418			
3039: CHENG	17.955	18.743	19.219	0.000	19.219	19.762	20.281	20.723	21.146	Continuing	Continuing			

A. Mission Description and Budget Item Justification

International Cooperative RDT&E: This project provides 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 U.S. Navy requirements with allied and friendly nations, and identify cooperative international opportunities, and improve coalition interoperability. In addition, it develops coherent approaches in coordination with Combatant Commanders, Chief of Naval Operations (CNO) 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.

Naval War College 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, quantitative analysis, war gaming and political military assessments, and provide recommendations to the CNO and Navy Component Commanders regarding the formulation and execution of maritime options for the President of the United States. 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 the Fleet Commanders on their Theater Security Cooperation Plans and operational warfighting issues.

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0605853N: Management, Technical & Intl Supt

BA 6: RDT&E Management Support

Assessment Program: Provides capability based planning assessment for Joint Capabilities Integration and Development System, conducts analysis to affect warfighting 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; 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 mission" (the Warfare and Provider Enterprises). Manages Office of the Chief of Naval Operations (OPNAV) support to Office of the Secretary of Defense/Navy's analytic agenda. 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 directly to Chief of Naval Operations (CNO) and assists in structuring follow-on OPNAV analyses. The program coordinates Navy's position for the Enhanced Planning Process and conducts Net Assessments. This program serves as the lead campaign analysis group for OPNAV and Chief of Naval Operations Investment Strategy assessments, all of which prove analytical underpinnings/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 CNO 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 guickly should one occur to avoid negative impact to the United States. This program is dual-hatted as the head of CNO's Capability Analysis Group and serves the CNO directly as an independent assessor providing a broad-view perspective across the Navy staff, with an integrated look at both warfighting and warfighting support programs. Program supports the world class modeling efforts to attain a level of modeling and simulation capability that is world class and establishes OPNAV as a leader in the Department of Defense modeling and simulation community. Provides the CNO 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.

Mid-Range Financial Improvement Plans: This project supports the Research Development Test & Evaluation, Navy (RDTEN) portion of the larger DoD and Navy-wide effort to implement the Financial Improvement Plan. Corrective actions 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 RDTEN.

CHENG: Funds the Assistant Secretary of the Navy for Research, Development and Acquisition Chief Engineer to develop and implement 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 Department of Navy (DON) 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 warfighting

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

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0605853N: Management, Technical & Intl Supt

BA 6: RDT&E Management Support

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, OSD and Joint integration and interoperability and Anti-Tamper requirements.

Operations Integration Group: Classified

FY 2011 OCO - N/A

B. Program Change Summary (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	51.213	60.590	0.000	0.000	0.000
Current President's Budget	49.255	60.181	58.329	0.000	58.329
Total Adjustments	-1.958	-0.409	58.329	0.000	58.329
 Congressional General Reductions 		-0.250			
 Congressional Directed Reductions 		0.000			
 Congressional Rescissions 	0.000	-0.159			
 Congressional Adds 		0.000			
 Congressional Directed Transfers 		0.000			
 Reprogrammings 	-0.800	0.000			
 SBIR/STTR Transfer 	-1.158	0.000			
 Program Adjustments 	0.000	0.000	58.329	0.000	58.329

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.

Exhibit R-2A, RDT&E Project Just	ification: PE	3 2011 Navy	,						DATE: Feb	ruary 2010			
APPROPRIATION/BUDGET ACTIV 1319: Research, Development, Test BA 6: RDT&E Management Support	Test & Evaluation, Navy port PE 0605853N: Management, Technical & Intl Supt 0149: International Coop RDT&				p RDT&E								
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost		
0149: International Coop RDT&E	3.912	5.603	5.273	0.000	5.273	4.716	4.864	4.474	4.548	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 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 U.S. 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), Chief of Naval Operations (CNO) 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 over 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 Office for the Chief of Naval Operations (OPNAV) 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).

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Febr	uary 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support				PROJECT 0149: International Coop RDT&E			
B. Accomplishments/Planned Program (\$ in Millions)							
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
International Coop RDT&E		3.889	5.603	5.273	0.000	5.273	
FY 2009 Accomplishments: - Maintained internal DoN international databases to support international projects with allies. Assessed functional ability to integrate DOPNAV departments to improve leveraging of program dollars, fielding of better products -Continued to support Maritime Theater Missile Defense Forum the from partner nation contributions. The multi-lateral forum (9 Maritus Navy) entered into four international agreements (Battle Man Communications, Computers and Intelligence (BMC4I); Distribut Architecture and Modeling and Simulation (M&S). The Maritime goal of an at-sea capability demonstration in 2015. - Continued US Navy International Bench, a new internet-based enhance collaboration between US military and agency personne. Continued to coordinate US Navy's participation in OUSD AT&I Program and the Coalition Warfare Program (CWP) selection procapability requirements. - Continued execution of over 300 Information/Date Exchange Accountries. - Continued execution and support of placement of US Navy and scientists under OSD's Engineer and Scientist Exchange Progration - Funded various evolving potential cooperative exchanges and irregular warfare including Multi-Mission Aircraft, Broad Area Matweapons System, and Swimmer Engagement.	s and speeding delivery. That obtained \$8.1M in R&D monies time Partner countries and the lagement, Command, Control, ed Engineering Plant, Open Theater Missile Defense Forum has a connector and composeable tool to el engaged in international work. L's Foreign Comparative Test (FCT) occesses to meet emerging military greements (IEA/DEA) with more than I partner nation engineers and m (ESEP). projects contributing to MDA/MSA and						

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0605853N: Management, Technical & Intl	0149: Interr	national Coop RDT&E
BA 6: RDT&E Management Support	Supt		

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
 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 2010 Plans: - Continue all efforts of FY09.					
FY 2011 Base Plans: - Continue all efforts of FY10.					
Acquisition Workforce Fund-2009	0.023	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: - Provided Acquisition Workforce support.					
Accomplishments/Planned Programs Subtotals	3.912	5.603	5.273	0.000	5.273

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

APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support efforts. The performance goals/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.
BA 6: RDT&E Management Support efforts. The performance goals/metrics are, in cooperation with Maritime Partner nations, to set and harmonize requirements, utilize respective technologies, encourage
efforts. The performance goals/metrics are, in cooperation with Maritime Partner nations, to set and harmonize requirements, utilize respective technologies, encourage

DATE: February 2010

Exhibit K-ZA, KDT&L PTOJECT 303	N-2A, NOTAL Project Justinication: 1 D 2011 Navy								DAIL. 1 60	luary 2010	
APPROPRIATION/BUDGET ACTI 1319: Research, Development, Tes BA 6: RDT&E Management Suppo	st & Evaluatio	n, Navy			IOMENCLA 3N: <i>Manage</i>	TURE ment, Techn	ical & Intl	PROJECT 1767: Nava	nl War Col St	rategic Stud	ies Supt
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1767: Naval War Col Strategic Studies Supt	4.115	4.607	4.438	0.000	4.438	4.506	4.573	4.666	4.753	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Fxhibit R-24 RDT&F Project Justification: PR 2011 Navy

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 Secretary of the Navy, the Chief of Naval Operations, and Fleet Commanders. 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 Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Strategic Studies	1.116	1.133	1.083	0.000	1.083
Naval War College (NWC) conducts research in strategic studies in response to tasking from the Secretary of the Navy (SECNAV), Chief of Naval Operation (CNO), Fleet Commanders, numbered Fleet Commanders, and Combatant Commanders. 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 warfighting and operational concepts, such as Sea Strike and FORCEnet.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Techn Supt	nical & Intl	PROJECT 1767: Nava	al War Col St	rategic Studi	es Supt
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: - Continued to conduct research and analysis projects and provided the numbered Fleets, Navy Component Commanders, and the direct support of numbered fleet commanders are expected to a Continued to support the OPNAV Staff on tasked research provided to SSG tasking from the CNO to SSG XXVIII to generate concepts for integration of unmanned systems into the maritinal approving at least fifty percent of the SSG concepts. - Initiated revolutionary operating and warfighting concepts for the SSG concepts and proving of the SSG concepts. - Continue to conduct research and analysis projects and proving of Naval Operations (OPNAV), the numbered Fleets, Naval Combatant Commanders. - Continued to support the OPNAV Staff on operational and sprojects. - CNO SSG tasking from the CNO to SSG XXIX to generate a concepts for 2035 and beyond with CNO approving at least second the concepts for SSG tasking from the CNO to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG tasking from the CNO to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG tasking from the CNO to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG XXXX to generate and concepts for 2035 and beyond with CNO approving at least second to SSG XXXX to generate and concepts for 2035 and second to SSG XXXX to generate and concepts for 2035 and second to SSG XXXX to	ne Combatant Commanders. Projects in o grow in scope. projects. e revolutionary operating and warfighting me force for 2028 and beyond with CNO or 2035 and beyond under CNO tasking. Projects and beyond under CNO tasking. Projects and the lavy Component Commanders, and the strategic level of war tasked research revolutionary operating and warfighting sixty percent of the SSG concepts. 2035 and beyond under CNO tasking.					
Naval War Gaming Support	, , , , , , , , , , , , , , , , , , ,	1.737	2.205	2.060	0.000	2.060
This project provides research, analysis and war gaming to me Navy, the Chief of Naval Operations, and Fleet Commanders.						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 319: Research, Development, Test & Evaluation, Navy 3A 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Techn Supt	ical & Intl	PROJECT 1767: Nava	PROJECT 1767: Naval War Col Strategic Studies S			
3. Accomplishments/Planned Program (\$ in Millions)							
•		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
both the quantity and quality of war games, analysis and the and research products can be accommodated within funding FY 2009 Accomplishments: - Continued to conduct 55-60 major war games and related numbered Fleets, Fleet Commanders, and the Combatant Commander (JFMCC) concept development via JFMCC Cecontinued to conduct analytical research on key operation. Submarine Warfare (ASW), submarine payloads, seaborne security, maritime homeland defense, maritime domain awa-Continued to conduct research supporting war games cospevelopment Command (NWDC) and US Joint Forces Comcontinued to develop advanced war gaming analytical meterone Continued to conduct analytic research on effects based of Forces Europe (NAVEUR) and Navy Component for Centra-Continued to conduct research in advanced adaptive Commesearch (ONR). - Continued to develop educational materials for Naval Oper-Continued to conduct high level policy analytic research and Initiatives for Office of the Secretary of Defense (OSD). - Continued to support CNO Maritime Strategy and operation gaming. FY 2010 Plans: - Continue to conduct 55-60 major war games and related e COCOMs, NCCs, OPNAV, numbered fleet commanders, oth commanders, the US Intelligence Community and other depositions.	events in support of OPNAV, the commanders. Itation for Joint Force Maritime Component of Excellence. Italian all challenges such as theater Antimaritime missile defense, global maritime reness, and Sea Basing. Italian all consored with Naval Warfare stand. It command tools. Italian and systems thinking for Naval I Command (NAVCENT). Italian and Control (C2) for Office of Naval arations Planners Course (NOPC). Italian addressing Proliferation Security of Security and concepts through analytical war ovents in support of SECNAV, CNO, ther USN and USMC operational						

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xhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt	PROJECT 1767: Nava	al War Col Si	rategic Stud	lies Supt
B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
 Continue to design, execute, analyze and report on a Titl annually between one classified and one unclassified war of Strategy for 21st Century Seapower. These games will lead efforts that will feed the suceeding Title 10 War Games as support of strategy development and force design. Continue to conduct research, games, and workshops in sthe QDR Team. Continue to conduct operational research, experimentation ability of Navy Combined and Joint Force Maritime Composition Component Commanders via concept development and an expect of the Commanders in response to their needs for operational plat to emerging operational requirements. Continue to conduct analytical research on key operational deterrence, logistics, maritime domain awareness, cyber, singuitime homeland defense, maritime security, and commandered to conduct research and development by suppositional to develop, evaluate and implement advanced with support the needs of OPNAV, operational commanders, and Continue to conduct analytic research on systems thinking command relationships for OPNAV and Fleet Commanders. Continue to research and develop advaced war gaming of command relationships for OPNAV and Fleet Commanders. Continue to research and develop advaced war gaming explanners Course (NOPC). Continue to conduct high level research, analysis, and gallitiatives for Office of the Secretary of Defense (OSD). 	game, in support of the Cooperative d to follow-on research and analytical part of the process of continual gaming in support of force design efforts of N81 and an and assessment activities to support the nent Commanders (C/JFMCC) and Naval alysis of the Maritime Operations Center fleet Commanders and Combatant nning, analysis and war gaming to respond all challenges such as sea control, ea basing, command relationships, and and control. In ting war games co-sponsored with Navy proces Command. War gaming analytical methods and tools to ad other Department of Defense Agencies. On Command and Control (C2) and see ducational materials for Naval Operations				

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Febr	uary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical Supt		PROJECT 1767: <i>Nava</i>	PROJECT 1767: Naval War Col Strateg		es Supt
B. Accomplishments/Planned Program (\$ in Millions)						
	F	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
 Continue to support CNO's concepts and initiatives through Continue to support the Navy's Strategic Planning Process Continue to conduct, research, and analyze maritime home defense related concepts in support of the Cooperative Strategic Plans: Continue all efforts of FY 10. 	and to increase support to the NSP.					
Warfare Analysis and Research		0.490	0.501	0.499	0.000	0.499
 FY 2009 Accomplishments: Continued to conduct major decision events in support of (OPNAV), the numbered Fleets, Fleet Commanders, and the were in direct support of warfighting analysis requirements for expanded to include Commander Seventh Fleet (C7F) with Ocean. Conducted analytical research on key strategic and operate ballistic missile defense, proliferation security initiative, global awareness, maritime operations headquarters, interconnect - Continued additional evaluation of concepts and decision excenter. Conducted research targeted at the strategic and policy leverage. Continued to provide direct support to NWC student research and policy leverage. 30-40 major decision are conducted in support of there effects. 	combatant Commanders. Projects or numbered fleet commanders and were particular focus on India and the Indian sional challenges such as maritime all maritime security, maritime situational evity, and multi-service force deployment. Events in conjunction with war gaming evel decision making within China arch groups and war gaming.					
 Continue to conduct major decision events in support of Ole Commanders, and the Combatant Commanders. Projects v 						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technology	nical & Intl PROJECT 1767: Nava		CT aval War Col Strategic Studies Su		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
 analysis requirements for numbered fleet commanders and Seventh Fleet (C7F) with particular focus on India and the Ir - Conduct analytical research on key strategic and operation missile defense, proliferation security initiative, global maritin awareness, maritime operations headquarters, interconnect - Continue additional evaluation of concepts and decision eventer. Conduct research targeted at the strategic and policy level - Continue to provide direct support to NWC student research - 30-40 major decision events will be conducted in support of the support of the	ndian Ocean. nal challenges such as maritime ballistic me security, maritime situational ivity, and multi-service force deployment. vents in conjunction with war gaming decision making within China. ch groups and war gaming.					
NWC Student Research Projects		0.152	0.155	0.171	0.000	0.171
Selected, top performing Naval War College (NWC) students to conduct focused research and analysis of current and future and tactical imperatives. These students are organized under Program and the Halsey Group Program faculty.	re strategic and operational challenges					
FY 2009 Accomplishments: - Conducted focused research, analysis and war gaming of challenges and tactical imperatives by the Halsey Group and						
 Research groups continued to conduct focused research, a current and future operational challenges and tactical imper homeland defense and access denial efforts at the high end Pacific, European Command (EUCOM), Central Command 	atives arising from regional threats, of the conflict spectrum in the					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Techn Supt	ical & Intl	PROJECT 1767: Naval War Col Strategic Studies Sup			ies Supt
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
(NORTHCOM) area of responsibility (AOR). Research and ar above, and was expanded to include a detailed focus on coun countering information denial and missile defense at the theater - Conducted research for Deputy Secretary of Defense (DEPS College.	ter-targeting, operational deception, and er joint operational level.					
 FY 2010 Plans: Conducted focused research, analysis and war gaming of cu challenges and tactical imperatives by the Halsey Group and Note and Paragraphics and future operational challenges and tactical imperation homeland defense and access denial efforts at the high end of Pacific, European Command (EUCOM), Central Command (CONORTHCOM) area of responsibility (AOR). Research and an above, and was expanded to include a detailed focus on councountering information denial and missile defense at the theater Conducted research for Deputy Secretary of Defense (DEPS College. 	Mahan Scholars programs. alysis and free-play war gaming of ves arising from regional threats, f the conflict spectrum in the ENTCOM) and Northern Command halysis efforts continued in those areas ter-targeting, operational deception, and er joint operational level.					
FY 2011 Base Plans: Continue all efforts of FY 10						
Maritime Headquarters (MHQ)/Maritime Operations (MOC) Analysi		0.600	0.613	0.625	0.000	0.625
Formerly JFMCC/Worldwide Naval Component Commanders (conducts research and analysis at the operational level of war, Headquarters (MHQ) with Maritime Operations Center (MOC) a Component Commander (C/JFMCC) activities. These activities doctrine development of numbered fleet war games, exercises,	including direct support for the Maritime and Combined/Joint Forces Maritime include support for concept and					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technic Supt	cal & Intl	PROJECT 1767: Nava	PROJECT 1767: <i>Naval War Col</i> S		ies Supt
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
 Conducted research and analysis projects and provide supactivities and direct support for the numbered Fleet Commar in support of analysis and definition of maritime operational management, tasking subordinates, operational level planning - Initiated research into the required competencies for Maritimenlisted personnel to successful operate at the operational level plans: Conduct research and analysis projects and provide support activities and direct support for the numbered Fleet Commar in support of analysis and definition of maritime operational management, tasking subordinates, operational level planning - Initiate research into the required competencies for Maritiment 	onders. Efforts include assist team visits processes, including execution battle and and operational/effects assessment. The staff Operations Course for officer and evel of war. Out of MHQ with MOC and C/JFMCC and course. Efforts include assist team visits processes, including execution battle and and operational/effects assessment.					
enlisted personnel to successful operate at the operational left operational left operational left operation all efforts of FY 10.						
Acquisition Workforce Fund		0.020	0.000	0.000	0.000	0.00
FY 2009 Accomplishments: Funded Acquisition Workforce Fund.						
Acc	complishments/Planned Programs Subtotals	4.115	4.607	4.438	0.000	4.43

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE : February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0605853N: Management, Technical & Intl	1767: Nava	l War Col Strategic Studies Supt
BA 6: RDT&E Management Support	Supt		

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

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

NWC Research and Analysis Metrics: NWC supports the Navy's strategic and operational planning through the design, execution, analysis and reporting of strategic and operational level research and analysis. The focus of these studies will alternate annually between classified and unclassified studies in support of the Cooperative Strategy for 21st Century Seapower, with the analytical results informing follow-on research and analysis as part of the process of continual gaming in support of strategy development and force design. Other research and analytical war games and workshops will be conducted to inform the Navy Quadrennial Defense Review (QDR) team in support of their efforts to provide the Navy's position to the QDR. Further research and analysis will be conducted to support the Fleet Commanders and Combatant Commanders in response to their needs for operational planning, analysis and war gaming of emergent operational requirements. The studies, workshops, and war games for OPNAV and the fleet commanders on will focus operational challenges, such as sea control, deterrence, logistics, maritime domain awareness, sea basing, cyber, command relationships, maritime homeland defense, maritime security, and command and control (C2). Operational research and analysis in support of the Navy's Combined and Joint Force Maritime Component Commanders Course will provide key insights informing the maritime operational level of command and the concept development of the Maritime Operations Center. NWC also conducts extensive research and analysis on measures of effectiveness and systems thinking for the fleet commanders as well as research and analytical support to OPNAV on the Navy's Strategic Planning Process (NSPP). NWC conducts strategic and operational level research and analysis in support of the Office of the Secretary of Defense and the Department of State in the area of the Proliferation Security Initiative.

Strategic Studies Metrics: Naval War College (NWC) conducts research in strategic studies in response to tasking from the Secretary of the Navy (SECNAV), Chief of Naval Operation (CNO), Fleet Commanders, numbered Fleet Commanders, and Combatant Commanders. 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 warfighting and operational concepts, such as Sea Strike and FORCEnet.

War Gaming Metrics: 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), Quadrennial Defense Review (QDR), and Navy Strategic Planning Process (NSPP) processes. Each year Naval War College (NWC) develops and executes 50-60 major war games and associated events to explore and analyze military, political, informational and economic aspects of differing strategic and operational scenarios and tactical imperatives. Naval War College (NWC) conducts strategic and operational war gaming and research in direct support or Office of the Chief of Naval Operations (OPNAV), the numbered Fleets, Fleet Commanders, and the Combatant Commanders. The intent of the research is to

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	PE 0605853N: Management, Technical & Intl Supt	1767: Naval War Col Strategic Studies Supt
provide Navy and DoD leadership with researched and analytic force structure. Warfare Analysis Metrics: Each year, 30-40 events provide sup address future needs of the Service. These issues and decisio Halsey/Mahan Metrics: The Halsey and Mahan Scholars group: operational and functional challenges. The results of the resea into operational plans and procurement priorities. Maritime Operation Centers Metrics: NWC is responsible for de Staff personnel, and the Numbered Fleet Commander, including JFMCC advisory and assist team. Research results and analys Maritime Operation Centers.	cal information to make decisions on current and future of port to efforts that explore and analyze a wide range of this can then be further tested and evaluated in conjuncting research four specific directed projects and several in the inch are provided to the OPNAV Staff, operational fleets evelopment of Professional Military Education for Naval of great education and research initiatives in support of concepts.	issues and their associated factors which on with NWC wargaming center. dependent research projects on real world and Combatant Commanders and provided input Component Commanders and Numbered Fleet of of operations development, training and C/

DATE: February 2010

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support				I OMENCLA 3N: <i>Manage</i>		ical & Intl	PROJECT 2221: <i>JT M</i>	ission Asses	ssment Studi	es	
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2221: JT Mission Assessment Studies	21.741	25.223	27.963	0.000	27.963	28.484	28.875	29.378	29.896	Continuing	Continuing

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A. Mission Description and Budget Item Justification

Quantity of RDT&E Articles

Exhibit R-24 RDT&F Project Justification: PR 2011 Navv

Assessment Program, provides capability based planning assessment for Joint Capabilities Integration and Development System (JCIDS), conducts analysis to affect warfighting 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 provider 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 (FORCENet); warfare systems (Sea Strike, Sea Shield, and Sea Basing) and their architectures; force structure; and the Navy's core "organize, train, and equip mission" (the Warfare and Provider Enterprises). Manages Office of the Chief of Naval Operations (OPNAV) support to Office of the Secretary of Defense (OSD)/Navy's analytic agenda. Provides overarching Planning, Programming and Budgeting System (PPBES) analyses and guidance for Planning, Programming, Budgeting and Execution System (PPBES) which provides gap analysis and investment strategy and Total Obligation Authority (TOA) allocation. Provides independent capability analysis directly to Chief of Naval Operations (CNO) and assists in structuring follow-on OPNAV analyses. The program coordinates Navy's position for the Enhanced Planning Process and conducts Net Assessments. This program serves as the lead campaign analysis for Office of the Chief of Naval Operations (OPNAV) and Chief of Naval Operations Investment Strategy assessments, all of which prove analytical underpinnings/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 CNO 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 guickly should one occur to avoid negative impact to the United States. This program is dual-hated as the head of CNO's Capability Analysis Group and serves the CNO directly as an independent assessor providing a broad-view perspective across the Navy staff apart from resource sponsors, with an integrated look at both warfighting and warfighting support programs. Program supports the world class modeling efforts to attain a level of modeling and simulation capability that is world class and establishes OPNAV as a leader in the Department of Defense (DoD) modeling and simulation community. Provides the CNO 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.

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

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Febr	uary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Techn Supt	ical & Intl	PROJECT 2221: JT Mi	PROJECT 2221: JT Mission Asses		es
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
JT Mission Assessment Studies		0.000	3.141	6.515	0.000	6.515
Capabilities-Based Assessment (CBA) - The CBA is the Join System analysis process that includes three phases: the Fur Needs Analysis (FNA), and the Functional Solution Analysis to develop a joint capabilities document (based on the FAA a (based on the full analysis). CBA funding provides the resour analytic underpinning required by Chairman of the Joint Chie the determination of Naval warfighting capabilities and force Requirements Oversight Council/Joint Capabilities Integratio validation process and to inform Program Objective Memora FY 2010 Plans: CBA is a process designed to address future warfighting refeforts will improve the quality of Analysis of Alternatives ge integration task, and increase the capability to respond to q requirements to address capability-based assessments.	actional Area Analysis (FAA), the Functional (FSA). The results of the CBA are used and FNA) or initial capabilities document recesponsors the means to develop the lefts of Staff Instruction 3170.01G to support structure needed to support the Joint in and Development System requirements indum programming decisions. Quirements and analysis needs. CBA nerated, complement the warfare					
FY 2011 Base Plans: Continue FY10 CBA efforts. The additional funds in FY11 a supporting future Naval capability requirements for next-ger weapons systems. Provide analysis support for N8F Resou Sponsor Program Proposal supporting Guidance to Developin FY11 will also cover PMDSS implementation and operation 0605152N Project 2092 previously	neration shipbuilding, aviation, and urce Sponsor development of Integrated the Force irection. The additional funding					
Navy Standard Scenarios with Warfare and Warfare Support An	alyses	1.520	1.551	1.582	0.000	1.582

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE
PE 0605853N: Management, Technical & Intl
Supt

PROJECT
2221: JT Mission Assessment Studies

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
PY 2009 Accomplishments: Developed, updated and maintained detailed level Navy Standard scenarios based on Defense Planning Guidance. Developed alternative scenarios in support of Quadrennial Defense Review, Joint studies, and Navy resource analyses. Developed, updated and maintained analytic baselines for the Major Combat Operations based on Defense Planning Guidance. Developed 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 and measures of effectiveness 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.					
FY 2010 Plans: Continue all efforts of FY09.					
FY 2011 Base Plans: Continue all efforts of FY10.					
Capability Based Assessments with Campaign Mission Analyses Analytical and Technical Support FY 2009 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 the Chief of Naval Operations (CNO) and Navy senior leadership. Provided analytically-based decision	2.864	2.922	3.105	0.000	3.105

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

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 6: RDT&E Management Support

R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technical & Intl Supt

2221: JT Mission Assessment Studies

FY 2011 FY 2011

FY 2011

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

	FY 2009	FY 2010	Base	осо	Total
recommendations to CNO for both warfighting and support areas. Developed CNO Investment					
strategy recommendations and perform assessments for Program Review and Program Objective					
Memorandum. Assessed capability sponsor's products for senior leadership decision forums.					
Conducted Verification, Validation & Accreditation of warfare, performance, and pricing models.					
Conducted Overseas Contingency Operation Capabilities-Based Assessment that provided a rapid					
and scalable process to utilize a Concept of Operation and 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 capabilities 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					
Overseas Contingency Operation (OCO), and intelligence preparation of the environment for both					
MCOs and OCO. Performed Capabilities-Based Assessments (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 that supported decision-making in					
the Planning, Programming, Budgeting Executing 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 Objectives Memorandum 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					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Febr	uary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605853N: Management, Technology	nical & Intl	PROJECT 2221: JT M	PROJECT 2221: JT Mission Assess		es
B. Accomplishments/Planned Program (\$ in Millions)			I			
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
warfighting support processes, Manpower and Personnel, T afloat and ashore Readiness, Naval Medical Program and p analyses for accreditation of models, used estimate cost and modeled programs such as the Flying Hour Program, ship of spares, facilities, and base operation support. FY 2010 Plans: Continue all efforts of FY09. FY 2011 Base Plans:	provider enterprise operations. Performed dispersion di					
Continue all efforts of FY10.						
Campaign Analysis-Modeling and Simulation FY 2009 Accomplishments: Developed and maintained common baselines from which of level analyses are executed. Identified, developed, and importation in Office of the Secretary of Defense (OSD)/Joi development, and collection of data. Provided coordination assumptions, Concept of Operations, scenarios and data. Chief of Naval Operations (OPNAV). Conducted modeling a missile defense analysis requirements.	oroved data and modeling. Led Navy's int Staff analytic agenda, baseline across the Navy. Brokered agreed upon Led campaign analysis for Office of the	6.582	6.367	5.914	0.000	5.914
FY 2010 Plans: Continue all efforts of FY09.						
FY 2011 Base Plans: Continue all efforts of FY10.						
OSD/Joint Staff Study Analysis and Assessment with Investmen	t Strategy Development	1.857	2.251	2.126	0.000	2.126

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy	DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0605853N: Management, Technical & Intl	2221: <i>JT M</i>	lission Assessment Studies
BA 6: RDT&E Management Support	Supt		

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: Coordinated/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 analyses and guidance. Provided analytically-based decision recommendations to Chief of Naval Operations for Joint warfighting 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 Office of the Chief Naval Operations. Coordinated/led Navy role in Defense Planning Guidance, Program Decision Memoranda, Quadrennial Defense Review, and Defense Science Board studies. Participated in Office of the Secretary of Defense 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.					
FY 2010 Plans: Continue all efforts of FY09.					
FY 2011 Base Plans: Continue all efforts of FY10.					
World Class Modeling, Simulation, and Capability Analysis	8.810	8.991	8.721	0.000	8.721
FY 2009 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					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

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

PE 0605853N: Management, Technical & Intl
Supt

DATE: February 2010

PROJECT
2221: JT Mission Assessment Studies

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
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 Fleet readiness and logistics M&S. Conducted Verification, Validation, and Accreditation of select Navy models. Improved the ability to model emerging security challenges and operations concepts (Irregular, Catastrophic, 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 Modeling and Simulation (M&S) in the Sea Strike, FORCEnet Sea Shield, and Sea Basing mission areas. Conducted mission level warfare M&S of Joint Capability Areas.					
FY 2010 Plans:					
Continue all efforts of FY09.					
FY 2011 Base Plans: Continue all efforts of FY10.					
Acquisition Workforce Fund-2009	0.108	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: Provided Acquisition Workforce Support.					
Accomplishments/Planned Programs Subtotals	21.741	25.223	27.963	0.000	27.963

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

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0605853N: Management, Technical & Intl	2221: JT Mission Assessment Studies
BA 6: RDT&E Management Support	Supt	

E. Performance Metrics

The overall goal of Project 2221 is for N81 to conduct analysis to support the CNO 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. Joint Mission Assessment Studies 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.

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 effectiveness (MOEs) and recommend appropriate modeling/methodology to support analysis. Models/methodology used reflected study objects, level of fidelity required and time constraints.

Campaign and Mission Analyses Analytic and Technical Support & Warfare Risk Analysis and Assessment: 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 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 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.

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 POA&M reports developed or updated that encompass all aspects of Sea Power 21 to include at a minimum air, land, sea, and C4ISR.

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 warfighting 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 warfighting 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 is in the Investment Strategy.

World Class Modeling, Simulation, and Capability Analysis: Goal: Development of new models or model upgrades to meet requirements identified by the World Class Modeling (WCM) requirements process that support the POM decision-making process, with the goal of creating a state-of-the art set of models for use in warfare

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0605853N: Management, Technical & Intl	2221: <i>JT M</i>	ission Assessment Studies
BA 6: RDT&E Management Support	Supt		
and warfare support analyses. METRIC: Develop model design docummodel verification and validation plans, code, POA&M reports, and tech Joint Mission Assessment Studies: Goal: Provides an objective, repeat to the Director of Naval Warfare Integration, N8F. METRIC: Issues are Capability; Safety; Leadership Focus; Fiscal Responsibility; Naval Capability;	ents, model study reports, system specifications, nnical reports. table and transparent method for ranking funding ranked according to their contribution to a series	issue paper	s submitted by Resource Sponsors

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support								PROJECT 3025: Mid-Range Financial Improvement Plans			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 FY 2011 OCO Total FY 2012 FY 2013 Estimate Estimate Estimate				FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3025: Mid-Range Financial Improvement Plans	1.532	1.587	1.436	0.000	1.436	1.532	1.566	1.601	1.635	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 Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Mid-Range Financial Improvement Plans	1.524	1.587	1.436	0.000	1.436
 FY 2009 Accomplishments: Continued performing obligation validations ensuring accuracy. Continued revising the accounts receivable process to more accurately record collections. 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. 					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy	DATE : February 2010	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0605853N: Management, Technical & Intl	3025: Mid-Range Financial Improvement Plans
BA 6: RDT&E Management Support	Supt	

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
- Initiated and submitted the assertion for the following three segments: Financial Reporting, Civilian Pay and Reimbursable Work Orders.					
FY 2010 Plans: - Continue all efforts of FY09.					
FY 2011 Base Plans: - Continue all efforts of FY10.					
Acquisition Workforce Fund-2009	0.008	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: - Provided Acquisition Workforce support.					
Accomplishments/Planned Programs Subtotals	1.532	1.587	1.436	0.000	1.436

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.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0605853N: Management, Technical & Intl 3028: Operations Integration Group

BA 6: RDT&E Management Support Supt

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3028: Operations Integration Group	0.000	4.418	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.418
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Classified program details are held at a higher classification.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Operations Integration Group	0.000	4.418	0.000	0.000	0.000
FY 2010 Plans: Classified program details are held at a higher classification.					
Accomplishments/Planned Programs Subto	tals 0.000	4.418	0.000	0.000	0.000

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

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Details held at a higher classification.

PE 0605853N: Management, Technical & Intl

3039: CHENG

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

PROJECT APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

BA 6: RDT&E Management Support Supt

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3039: <i>CHENG</i>	17.955	18.743	19.219	0.000	19.219	19.762	20.281	20.723	21.146	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

1319: Research, Development, Test & Evaluation, Navy

Project 3039 funds the Assistant Secretary of the Navy (ASN) for Research, Development and Acquisition (RD&A), ASN RD&A Chief Engineer (RDA CHENG) to develop and implement 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 Department of Navy (DoN) 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 warfighting 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 Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Standards, Policy, and Guidelines	5.000	5.030	5.150	0.000	5.150
FY 2009 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.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE
PE 0605853N: Management, Technical & Intl
Supt

PROJECT
3039: CHENG

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Continued 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 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 2010 Plans:					
Continue all efforts of FY09 above until completion is indicated. Execute guidance resulting from completion of FY09 efforts. FY 2011 Base Plans:					
Continue all efforts of FY10.					
Acquisition Workforce Fund-2009	0.090	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: Provided Acquisition Support.					
Naval Collaborative Engineering Environment (NCEE)	2.371	2.765	2.848	0.000	2.848
FY 2009 Accomplishments: N/A					
FY 2010 Plans: N/A					

UNCLASSIFIED

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE
PE 0605853N: Management, Technical & Intl
Supt

PROJECT
3039: CHENG

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

	FY 200	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: N/A					
Systems Engineering	10.4	10.948	11.221	0.000	11.221
FY 2009 Accomplishments: N/A					
FY 2010 Plans: N/A					
FY 2011 Base Plans: N/A					
	Accomplishments/Planned Programs Subtotals 17.9	55 18.743	19.219	0.000	19.219

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

N/A

D. Acquisition Strategy

N/A

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

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy	DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
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BA 6: RDT&E Management Support	Supt		

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.