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

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0605152N: Studies & Analysis Supt - Navy

BA 6: RDT&E Management Support

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	14.817	12.321	8.149	0.000	8.149	11.425	11.236	10.673	10.910	Continuing	Continuing
0133: National Acad Sci/Stud Board	1.583	1.697	1.201	0.000	1.201	1.757	1.735	1.659	1.694	Continuing	Continuing
2092: Naval Warfare Studies	12.899	8.851	6.309	0.000	6.309	8.799	8.656	8.218	8.414	Continuing	Continuing
2097: Manpower Personnel & Training	0.335	0.777	0.639	0.000	0.639	0.869	0.845	0.796	0.802	Continuing	Continuing
9999: Congressional Adds	0.000	0.996	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.685

### 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 2009	FY 2010	<b>FY 2011 Base</b>	FY 2011 OCO	FY 2011 Total
Previous President's Budget	8.044	11.422	0.000	0.000	0.000
Current President's Budget	14.817	12.321	8.149	0.000	8.149
Total Adjustments	6.773	0.899	8.149	0.000	8.149
<ul> <li>Congressional General Reductions</li> </ul>		-0.051			
<ul> <li>Congressional Directed Reductions</li> </ul>		0.000			
<ul> <li>Congressional Rescissions</li> </ul>	0.000	-0.050			
Congressional Adds		1.000			
<ul> <li>Congressional Directed Transfers</li> </ul>		0.000			
Reprogrammings	7.005	0.000			
SBIR/STTR Transfer	-0.232	0.000			
<ul> <li>Program Adjustments</li> </ul>	0.000	0.000	8.149	0.000	8.149

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 0605152N: Studies & Analysis Supt - Navy

BA 6: RDT&E Management Support

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

Project: 9999: Congressional Adds

Congressional Add: Joint Heavy-Lift Rotocraft Research

Congressional Add Subtotals for Project: 9999 0.000 0.996

FY 2009

0.000

**FY 2010** 

0.996

Congressional Add Totals for all Projects

**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.

**DATE:** February 2010

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PROPRIATION/BUDGET ACTIVITY  19: Research, Development, Test & Evaluation, Navy 6: RDT&E Management Support  R-1 ITEM NOMENCLATURE PE 0605152N: Studies & Analysis Supt - Navy 0133: National Acad Sci/Stud Board										I	
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
0133: National Acad Sci/Stud Board	1.583	1.697	1.201	0.000	1.201	1.757	1.735	1.659	1.694	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

### A. Mission Description and Budget Item Justification

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

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) (ASN (RD&A)) and the CNO and staff, and written technical reports.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
National Acad Sci/Stud Board	1.575	1.697	1.201	0.000	1.201
FY 2009 Accomplishments:  - Continued research efforts and investigations in areas of interest to the Navy Initiated and completed a new study on climate change on U.S. naval forces Initiated a new study on small vessels Completed study on information assurance selected by the CNO during FY09 Provided Acquisition Workforce support.  FY 2010 Plans: - Continue research efforts and investigations in areas of interest to the Navy Complete studies initiated in FY09 Initiate two new studies to be selected by the CNO during FY10.					

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

### APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 1319: Research, Development, Test & Evaluation, Navy

BA 6: RDT&E Management Support

PE 0605152N: Studies & Analysis Supt - Navy

**PROJECT** 0133: National Acad Sci/Stud Board

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base 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.					
DAWDF	0.008	0.000	0.000	0.000	0.000
FY 2009 Accomplishments:  DAWDF Realignment					
Accomplishments/Planned Programs Subtotals	1.583	1.697	1.201	0.000	1.201

## 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.

**DATE:** February 2010

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

FY 2011 FY 2011 FY 2011

PROJECT
2092: Naval Warfare Studies

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
2092: Naval Warfare Studies	12.899	8.851	6.309	0.000	6.309	8.799	8.656	8.218	8.414	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

### A. Mission Description and Budget Item Justification

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

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 Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Naval Warfighting Assessments	10.027	6.401	5.325	0.000	5.325
FY 2009 Accomplishments:  Coordinated and prioritized all 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. Led Navy's analytic engagement with the Office of the Secretary of Defense (OSD) and Joint Staff, including coordination of OPNAV participation in Joint Analytical Agenda. Assessed magnitude gaps and analyzed programmatic solutions. Reviewed approximately 40 to 45 FY09 tasks for technical executability,					

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

EV 0044 EV 0044 EV 0044

1319: Research, Development, Test & Evaluation, Navy PE 0605152N: Studies & Analysis Supt - Navy

Review approximately 40 tasks for FY10 Integrated Analytic Agenda in support of POM-12 technical executability, deconflict internally, and eliminate redundancy with work previouly done. Prioritize FY10 tasks to address issues of greatest concern to leadership and with greatest impact on probrams/ capabilities. Tasks approvided 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. Produce and deliver FY10 Analytical Agenda briefings and asssessments for CNO within the overall Navy program development

processes and to deliver timely results on urgent operational and/or POM issues.

2092: Naval Warfare Studies BA 6: RDT&E Management Support

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
deconficted internally, and eliminated redundancy with work previouly done. Provided programtic recommendation in support of PR-11. Produced and delivered briefings and asssessments for CNO within the overall Navy program development processes and delivered timely results on urgent operational and/or POM issues.						
FY 2010 Plans:  Coordinate and prioritize all OPNAV analysis efforts. Support future Naval warfighting capability assessments, including cost-to-capability assessments, and mission-level modeling and simulation. Analyze integration across all warfare areas, and and assessments of legacy and future Programs of Record contribution to future warfighting requirements. Integrate Naval warfighting requirements into the Joint Capability Integration and Development System process. Provide the analytical underpinning for investment recommendations to Chief of Naval Operations (CNO). Serve as the analytics basis to integrate and prioritize overall warfighting capability requirements and acquisition programs to support the Naval Capability Development Process. Support the development of Mission Capability Packages, Naval Capability Packages, Integrated Strategic Capability Plans, and capabilities-based and balanced Integrated Sponsors' Program Proposals. Support the Navy in its						
effort as lead for analytic engagement with OSD and Joint Staff, including coordination of OPNAV participation in Joint Analytical Agenda. Assess magnitude gaps and analyze programmatic solutions.						

FY 2011 Base Plans: Continue FY10 Plan.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy	DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605152N: Studies & Analysis Supt - Navy	PROJECT 2092: Nava	al Warfare St	udies	
B. Accomplishments/Planned Program (\$ in Millions)					
			FY 2011	FY 2011	FY 2011

FY 2009

2.823

0.049

**FY 2010** 

2.450

0.000

8.851

Base

0.984

0.000

6.309

OCO

0.000

0.000

0.000

Total

0.984

0.000

6.309

## Navy leadership with investment programming decision support.

Portfolio Management Decision Support System

FY 2009 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 capability to contribute to future warfighting requirements.

Portfolio Management Decision Support System: An analytic portfolio management methodology to aid

### FY 2010 Plans:

Provide an assessment process that fosters informed, understandable, repeatable investment decisions with consistent, pedigreed, and retrievable information. Assess programs of record and their proposed modifications (legacy and future) on their relative contribution to future warfighting requirements.

## FY 2011 Base Plans:

Continue FY10 plan.

# DAWDF Realignment

FY 2009 Accomplishments: Acquisition Workforce

# Accomplishments/Planned Programs Subtotals 12.899

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

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0605152N: Studies & Analysis Supt - Navy | 2092: Naval Warfare Studies

BA 6: RDT&E Management Support

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

N/A

### D. Acquisition Strategy

Not applicable.

### **E. Performance Metrics**

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.

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.

**DATE:** February 2010

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APPROPRIATION/BUDGET ACT 1319: Research, Development, Te BA 6: RDT&E Management Suppo	st & Evaluatio	n, Navy	R-1 ITEM NOMENCLATURE PE 0605152N: Studies & Analysis Supt - Navy 2097: Manpo								
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
2097: Manpower Personnel & Training	0.335	0.777	0.639	0.000	0.639	0.869	0.845	0.796	0.802	Continuing	Continuing
Quantity of RDT&E Articles	4	9	9	0	9	0	0	0	0		

### A. Mission Description and Budget Item Justification

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

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 Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Manpower Personnel & Training	0.334	0.777	0.639	0.000	0.639
FY 2009 Accomplishments: Conducted a cost-benefit analysis of Naval Post Graduate School (NPS) vs. Civilian Institution School (CIVINS) for graduate degrees -Assessed effectiveness of Active and Reserve Recruiting merger -Assessed manpower/personnel growth of DDG-51 and CG-47 mid-life upgrade programs -Evaluated and assessed various manpower modelsl and associated algorithms					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy	DATE: February 2010		
	R-1 ITEM NOMENCLATURE PE 0605152N: Studies & Analysis Supt - Navy	PROJECT 2097: Man	power Personnel & Training
BA 6: RDT&E Management Support			

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans:					
Assess Return on Investment (ROI) for Special and Incentive pays (Assignment Incentive Pay, Sea					
Duty Incentive Pay, Selective Re-enlistment Bonus, Critical Skills Retention Bonus, etc)					
- Assess impact of Individual Augmentation and Global Support Assignments detailing on enlisted and					
officer retention					
- Assess Roadmap implementation and status of obtaining FIT 2016					
- Assess the potential use and determine appropriate areas to employ Smart Card/CAC Technology.					
- Assess Elasticities of Professional Recruiting Model					
- Assess viability and means to achieve Billet Based Distribution					
- Assess/propose updates and implementation for replacement of Navy Manpower Requirmements					
System					
- Assess Intelligent Workbook and Navy Enterprise Resource Planning Navy Manpower and Budget					
System					
- Assess alternate testing methods for predicting/forecasting Human Performance					
FY 2011 Base Plans:					
Continue FY 10 PLAN.					
DAWDF Realignment	0.001	0.000	0.000	0.000	0.000
FY 2009 Accomplishments:					
DAWDF Realignment					
Accomplishments/Planned Programs Subtotals	0.335	0.777	0.639	0.000	0.639
	L	L	L		

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

DATE: February 2010

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APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

BA 6: RDT&E Management Support

PE 0605152N: Studies & Analysis Supt - Navy | 2097: Manpower Personnel & Training

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

N/A

### D. Acquisition Strategy

N/A

#### 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.

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

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0605152N: Studies & Analysis Supt - Navy 9999: Congressional Adds

BA 6: RDT&E Management Support

BA 6. NO FAL Management Support											
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9999: Congressional Adds	0.000	0.996	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.685
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

## A. Mission Description and Budget Item Justification

Congressional Add

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

	FY 2009	FY 2010
Congressional Add: Joint Heavy-Lift Rotocraft Research	0.000	0.996
FY 2010 Plans:  Research and develop technology that increases structural, aerodynamic, flight control, and propulsion efficiencies for the Navy's Heavy-Lift Helicopter Program.		
Congressional Adds Subtotals	0.000	0.996

## 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