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

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603739N: <i>Navy Logistic Productivity</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	18.514	15.039	4.139	0.000	4.139	4.232	3.905	3.996	4.022	Continuing	Continuing
2955: <i>JEDMICS</i>	2.754	2.908	2.871	0.000	2.871	2.926	2.979	3.046	3.109	Continuing	Continuing
3223: <i>Logistics R&D</i>	0.000	0.980	0.890	0.000	0.890	0.927	0.926	0.950	0.913	Continuing	Continuing
3225: <i>Ordnance PHST</i>	0.000	0.395	0.378	0.000	0.378	0.379	0.000	0.000	0.000	0.000	1.152
9999: <i>Congressional Adds</i>	15.760	10.756	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	72.208

A. Mission Description and Budget Item Justification

Includes development and evaluation of incentive systems for improving the productivity of civilian and military personnel. Identifies barriers to increased productivity and evaluates the effect of removing them. Develops techniques for easing the introduction of new technology to the work place. Identifies and evaluates methods for improving the quality of work-life.

Excludes civilian and military manpower and their related costs and military construction costs which are included in appropriate Management and Support elements in this program.

B. Program Change Summary (\$ in Millions)

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	17.798	4.301	0.000	0.000	0.000
Current President's Budget	18.514	15.039	4.139	0.000	4.139
Total Adjustments	0.716	10.738	4.139	0.000	4.139
• Congressional General Reductions		-0.062			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		10.800			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.800	0.000			
• SBIR/STTR Transfer	-0.084	0.000			
• Program Adjustments	0.000	0.000	4.139	0.000	4.139

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

Project: 9999: Congressional Adds

	FY 2009	FY 2010
Congressional Add: <i>Hawaii National Guard Integrated Information Command System</i>	0.000	1.275
Congressional Add: <i>NSWC Corona Item Unique Identification Center</i>	0.000	1.434
Congressional Add: <i>Photonic Integration Foundry</i>	0.000	2.390
Congressional Add: <i>Real-time Tactical Intelligence Collection System</i>	0.000	1.195
Congressional Add: <i>UNIQUE IDENTIFICATION OF TANGIBLE ITEMS</i>	2.991	0.000
Congressional Add: <i>Thin Film Materials for Advanced Applications</i>	2.992	1.275
Congressional Add: <i>HIGHLY INTEGRATED OPTICAL INTERCONNECTS FOR ADV AI</i>	1.596	0.797
Congressional Add: <i>Advanced Naval Logistics</i>	1.596	2.390
Congressional Add: <i>RFID Tech Program</i>	0.798	0.000
Congressional Add: <i>Zero-Standoff HERO-Compliant RFID</i>	1.596	0.000
Congressional Add: <i>Field Support for Fiber Optic Cable</i>	1.596	0.000
Congressional Add: <i>Integrated Product Support Data Management System</i>	0.997	0.000
Congressional Add: <i>NAVAIR Distance Support Environment</i>	0.798	0.000
Congressional Add: <i>In Transit Visibility</i>	0.800	0.000
Congressional Add Subtotals for Project: 9999		10.756
Congressional Add Totals for all Projects		15.760

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

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

BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE

PE 0603739N: *Navy Logistic Productivity*

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

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

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603739N: <i>Navy Logistic Productivity</i>	PROJECT 2955: <i>JEDMICS</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2955: <i>JEDMICS</i>	2.754	2.908	2.871	0.000	2.871	2.926	2.979	3.046	3.109	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

In FY85 Congress directed the Services and Defense Logistics Agency to permanently capture, manage and control engineering data in digital format so it would be available to support competitive spares re-procurement. The Joint Engineering Data Management Information & Control System (JEDMICS) program manages and controls 106,000,000 engineering images and has 25,000 authorized users responsible for over 70,000 user sessions per month. Over 2.5 million digital images are retrieved each month. New data and new users are added each month as DoD re-engineers its business processes to take advantage of digital data that is managed and controlled for corporate reuse. The JEDMICS system is deployed at 11 interoperable sites that service 600 locations worldwide. Data stored in JEDMICS is used for Logistics Support, Spares re-procurement, Weapons Systems procurement, Engineering, Maintenance, Distribution, Manufacturing, Air National Guard and Deployed Engineering Technical Services organizations. JEDMICS facilitates work process re-design since it brings the electronic drawings to the desktop, shop floor or flight line in real time eliminating walk, wait and slack time to retrieve drawings. Additionally, Administrative Lead Time, Repair Turn Around Time, Engineering Change Proposal processing time, demilitarization time, and all cycle times dependent on engineering data have decreased with the real time availability of digital engineering data. JEDMICS also facilitates Electronic Commerce since it produces digital technical data packages that can be forwarded along with an electronic order. Funds are for Commercial Off The Shelf (COTS) test, evaluation and integration. JEDMICS development efforts are required to integrate and test COTS upgrades.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
JEDMICS Development Conduct development efforts associated with JEDMICS software releases. Conduct COTS requirements definition, evaluation, integration and testing of annual baseline releases. Conduct technology insertion of the JEDMICS system that is required to protect the \$21B digital data asset managed in JEDMICS.	2.679	2.831	2.796	0.000	2.796

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603739N: <i>Navy Logistic Productivity</i>		PROJECT 2955: <i>JEDMICS</i>				
B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<i>FY 2010 Plans:</i> Conduct technical evaluations and reviews for JEDMICS Software Release 3.12.								
<i>FY 2011 Base Plans:</i> Conduct technical evaluations and reviews for JEDMICS Software Release 3.13.								
Accomplishments/Planned Programs Subtotals				2.754	2.908	2.871	0.000	2.871
C. Other Program Funding Summary (\$ in Millions)								
N/A								
D. Acquisition Strategy								
Execution of sole-source negotiated requirements type contract for engineering, design, development and test efforts. Performance-based reviews conducted quarterly by the Project Management Office.								
E. Performance Metrics								
<ol style="list-style-type: none"> 1. Complete testing, integration, & upgrade of three (3) major embedded Commercial Off-the-Shelf (COTS) products. 2. Test & integrate system Information Assurance Vulnerability Management (IAVM) software patch upgrades four (4) times. 3. Complete development, testing, & integration of a minimum twenty (20) corrected high-priority software problem reports. 								

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy										DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603739N: <i>Navy Logistic Productivity</i>				PROJECT 2955: <i>JEDMICS</i>					

Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Development Support	C/Various	Various Various	0.305	0.214	Oct 2009	0.154	Oct 2010	0.000		0.154	0.157	0.830	Continuing
Software Development	C/Various	Various Various	0.216	0.000		0.000		0.000		0.000	0.000	0.216	Continuing
Software Development	SS/Various	Northrop Grumman Information McLean, VA	19.903	2.617	Nov 2009	2.642	Nov 2010	0.000		2.642	17.815	42.977	42.997
Subtotal			20.424	2.831		2.796		0.000		2.796	17.972	44.023	42.997

Remarks

Remarks: Funds are for development efforts associated with Commercial Off The Shelf (COTS) obsolescence on the fully deployed COTS Intensive Joint Engineering Data Management Information & Control System (JEDMICS). Funds are for COTS evaluation, integration, and test and evaluation. The common baseline will be regained and obsolete COTS software and hardware will be replaced. Baseline releases will protect joint interoperability, upgrade operating systems for security patches and supportable versions, support integration to replace obsolete COTS, and upgrade the Oracle database to supportable versions.

SS/Various is a Sole Source - Indefinite Delivery/Requirements contract

Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation	Various/ Various	Various Various	2.370	0.025	Oct 2009	0.025	Oct 2010	0.000		0.025	0.150	2.570	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy **DATE:** February 2010

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Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			2.370	0.025		0.025		0.000		0.025	0.150	2.570	

Remarks
Supports testing and evaluation of baseline releases in a user environment.

Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Government Engineering Support	Various/ Various	Various Various	1.083	0.000		0.000		0.000		0.000	0.000	1.083	Continuing
Program Management Support	WR	Various Various	0.197	0.016	Oct 2009	0.013		0.000		0.013	0.104	0.330	Continuing
Travel	Various/ Various	Various Various	0.214	0.036		0.037		0.000		0.037	0.234	0.521	Continuing
Subtotal			1.494	0.052		0.050		0.000		0.050	0.338	1.934	

Remarks
Supports requirements management at the Prime Contractor location and program related travel by government employees.

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

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Fiscal Year	2009				2010				2011				2012				2013				2014				2015							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones	MSC9 ▲				MSC10 ▲				MSC11 △				MS △				MSC13 △				MSC14 △				MSC15 △							
Requirements: Service IPT/ECPs	Release 3.11 ▲				Release 3.12 △				Release 3.13 △				Release 3.14 △				Release 3.15 △				Release 3.16 △				Release 3.17 △							
Control Board	▲				▲				△				△				△				△											
Software and Hardware Evaluation / Integration	Release 3.10 ■				Release ■				Release 3.12 □				Release 3.13 □				Release 3.14 □				Release 3.15 □				Release 3.16 □							
Test & Evaluation Milestones	Release 3.10 ▲				Release △				Release 3.12 △				Release 3.13 △				Release 3.14 △				Release 3.15 △				Release 3.16 △							
Risk Assessment	Release 3.10 ■				Release 3.11 □				Release 3.12 □				Release 3.13 □				Release 3.14 □				Release 3.15 □				Release 3.16 □							
Developmental/Functional Testing	Release 3.9 ■				Release 3.10 ■				Release 3.11 □				Release 3.12 □				Release 3.13 □				Release 3.14 □				Release 3.15 □				Release 3.16 □			
Alpha/Beta Testing	Release 3.9 ■				Release 3.10 ■				Release 3.11 □				Release 3.12 □				Release 3.13 □				Release 3.14 □				Release 3.15 □				Release 3.16 □			
Deliveries: Engineering Change Package	Release 3.9 ▲				Release 3.10 ▲				Release 3.11 △				Release 3.12 △				Release 3.13 △				Release 3.14 △				Release 3.15 △							

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

Event	Start		End	
	Quarter	Year	Quarter	Year
Alpha/Beta Testing Release 3.9	1	2009	1	2009
2009 Contract Award	1	2009	1	2009
Software Hardware Evaluation/Integration Release 3.10	1	2009	3	2009
Engineering Change Package Release 3.9	2	2009	2	2009
Milestone C9 (MS C9) Release 3.9	2	2009	2	2009
Risk Assessment Release 3.10	3	2009	3	2009
Developmental/Functional Testing Release 3.10	4	2009	4	2009
Service IPT/ECPs Release 3.11	4	2009	4	2009
Alpha/Beta Testing Release 3.10	4	2009	1	2010
2010 Contract Award	1	2010	1	2010
Software Hardware Evaluation/Integration Release 3.11	1	2010	3	2010
Engineering Change Package Release 3.10	2	2010	2	2010
Milestone C10 (MS C10) Release 3.10	2	2010	2	2010
Risk Assessment Release 3.11	3	2010	3	2010
Developmental/Functional Testing Release 3.11	4	2010	4	2010
Service IPT/ECPs Release 3.12	4	2010	4	2010
Alpha/Beta Testing Release 3.11	4	2010	1	2011
2011 Contract Award	1	2011	1	2011

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy		DATE: February 2010
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Event	Start		End	
	Quarter	Year	Quarter	Year
Software Hardware Evaluation/Integration Release 3.12	1	2011	3	2011
Engineering Change Package Release 3.11	2	2011	2	2011
Milestone C11 (MS C11) Release 3.11	2	2011	2	2011
Risk Assessment Release 3.12	3	2011	3	2011
Developmental/Functional Testing Release 3.12	4	2011	4	2011
Service IPT/ECPs Release 3.13	4	2011	4	2011
Alpha/Beta Testing Release 3.12	4	2011	1	2012
2012 Contract Award	1	2012	1	2012
Software Hardware Evaluation/Integration Release 3.13	1	2012	3	2012
Engineering Change Package Release 3.12	2	2012	2	2012
Milestone C12 (MS C12) Release 3.12	2	2012	2	2012
Risk Assessment Release 3.13	3	2012	3	2012
Developmental/Functional Testing Release 3.13	4	2012	4	2012
Service IPT/ECPs Release 3.14	4	2012	4	2012
Alpha/Beta Testing Release 3.13	4	2012	1	2013
2013 Contract Award	1	2013	1	2013
Software Hardware Evaluation/Integration Release 3.14	1	2013	3	2013
Engineering Change Package Release 3.13	2	2013	2	2013
Milestone C13 (MS C13) Release 3.13	2	2013	2	2013
Risk Assessment Release 3.14	3	2013	3	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy		DATE: February 2010
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Event	Start		End	
	Quarter	Year	Quarter	Year
Developmental/Functional Testing Release 3.14	4	2013	4	2013
Service IPT/ECPs Release 3.15	4	2013	4	2013
Alpha/Beta Testing Release 3.14	4	2013	1	2014
2014 Contract Award	1	2014	1	2014
Software Hardware Evaluation/Integration Release 3.15	1	2014	3	2014
Engineering Change Package Release 3.14	2	2014	2	2014
Milestone C14 (MS C14) Release 3.14	2	2014	2	2014
Risk Assessment Release 3.15	3	2014	3	2014
Developmental/Functional Testing Release 3.15	4	2014	4	2014
Service IPT/ECPs Release 3.16	4	2014	4	2014
Alpha/Beta Testing Release 3.15	4	2014	1	2015
2015 Contract Award	1	2015	1	2015
Software Hardware Evaluation/Integration Release 3.16	1	2015	3	2015
Engineering Change Package Release 3.15	2	2015	2	2015
Milestone C15 (MS C15) Release 3.15	2	2015	2	2015
Risk Assessment Release 3.16	3	2015	3	2015
Developmental/Functional Testing Release 3.16	4	2015	4	2015
Service IPT/ECPs Release 3.17	4	2015	4	2015
Alpha/Beta Testing Release 3.16	4	2015	4	2015

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3223: <i>Logistics R&D</i>	0.000	0.980	0.890	0.000	0.890	0.927	0.926	0.950	0.913	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Stable annual funding is required to facilitate implementation and execution of a robust, flexible Logistics R&D program that will provide the means for Naval Supply Systems Command (NAVSUP) to effectively pursue solutions to mission-related capability/technology gaps. The NAVSUP Logistics R&D program has an established infrastructure and business process for ensuring that R&D funds are applied to projects that address high priority enterprise needs established in accordance with OPNAV goals and the NAVSUP Commander's Guidance.

From a process perspective, Log R&D investments are governed by a NAVSUP enterprise-wide Executive Steering Group (ESG) chaired by the NAVSUP Vice Commander, and comprised of SES and Command leadership representatives. The ESG ratifies capability/technology gaps identified by all activities within the enterprise, and then assesses and prioritizes all proposed Log R&D initiatives in accordance with their potential for filling the established gap and generating return on investment.

The established Log R&D business management process has currently identified capability/technology gaps in the following general areas: 1) the need to develop technology enhancements promoting the movement of shipboard supply operations ashore, especially as it relates to optimally manned ships, 2) developing and/or modernizing shipboard equipment, material or processes for which NAVSUP exercises Technical Authority, 3) developing and modernizing Information Technology (IT) and Automatic Identification Technology (AIT) applications to enhance performance of supply chain management and logistics functions (e.g., remote diagnostics/prognostics, in-transit visibility, unique item identification) that are not supported by Navy ERP, and 4) collaborating with acquisition program managers to reduce total ownership costs. This modest R&D investment will establish a NAVSUP Logistics R&D Program to explore additional technologies and significantly increase potential cost savings.

Examples of specific issues/projects that are under consideration for investment of Log R&D funding as a result of the FY10 NAVSUP capability gap and initiative review include: Automated inventory management system; Shipboard ozone laundering; Improved general purpose protective equipment (helmet protection and anti-vibration gloves); Non-plastic waste bags; Counterfeit parts detection methodology; Afloat automatic identification technology architecture.

This list of potential projects for addressing capability gaps will be updated and prioritized over time, under the oversight of the NAVSUP Log R&D ESG, to ensure that funds allocated provide the highest return on investment consistent with Navy/NAVSUP goals and objectives.

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Automated Inventory Management System <i>FY 2010 Plans:</i> Automated Inventory Management System. Use of commercial warehouse management software and wireless Automatic Identification Technologies (AIT) to streamline afloat supply commodity management on large aviation platforms (CVN/LHA/LHD). Funds to provide initial year of multi-year Integrated Product & Process Development (IPPD) effort. <i>FY 2011 Base Plans:</i> Continuation of objectives identified in FY10.		0.000	0.325	0.541	0.000	0.541
Shipboard Ozone Laundering <i>FY 2010 Plans:</i> Shipboard ozone laundering. Development and test of ozone laundering for shipboard use to reduce total operating costs and reduce environmental impact (energy and chemical) usage. <i>FY 2011 Base Plans:</i> Continuation of FY10 Plans if necessary		0.000	0.150	0.080	0.000	0.080
Improved General Purpose Protective Equipment <i>FY 2010 Plans:</i> Improved General Purpose Protective Equipment. Develop a helmet for shipboard, facility & aircraft maintenance personnel that incorporates hearing protection, air supply, face protection and a means to communicate; Develop anti-vibration protective gloves for maintenance, repair and construction personnel. Follow-on projects in FY11.		0.000	0.100	0.052	0.000	0.052

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<i>FY 2011 Base Plans:</i> Continuation of FY10 projects if necessary								
Accomplishments/Planned Programs Subtotals				0.000	0.980	0.890	0.000	0.890
C. Other Program Funding Summary (\$ in Millions)								
N/A								
D. Acquisition Strategy								
The acquisition strategy for each individual sub-project (below) has not yet been determined and will be determined during FY10.								
Automated Inventory Management System: Use of commercial warehouse management software and wireless Automatic Identification Technologies (AIT) to streamline afloat supply commodity management on large aviation platforms (CVN/LHA/LHD). Funds to provide initial year of multi-year Integrated Product & Process Development (IPPD) effort.								
Shipboard Ozone Laundering: Development and test of ozone laundering for shipboard use to reduce total operating costs and reduce environmental impact (energy and chemical) usage.								
Improved General Purpose Protective Equipment: Develop a helmet for shipboard, facility & aircraft maintenance personnel that incorporates hearing protection, air supply, face protection and a means to communicate; Develop anti-vibration protective gloves for maintenance, repair and construction personnel.								
Non-Plastic Waste Bags: Develop an alternative to plastic trash bags with similar performance characteristics, yet not containing plastic, in order to decrease the amount of plastic waste required to be processed aboard Navy vessels.								
Counterfeit Parts Detection Methodology: Develop a methodology utilizing existing databases and tools for the detection and mitigation of counterfeit parts in the naval aircraft supply chain. Mitigating counterfeit parts will reduce maintenance and AVDLR costs, while improving safety.								

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603739N: <i>Navy Logistic Productivity</i>	PROJECT 3223: <i>Logistics R&D</i>
Afloat Automatic Identification Technology Architecture: Establish an afloat AIT architecture that parallels the ashore solution and provides better visibility and reduces shipboard manning requirements. Funds to provide initial year of multi-year Integrated Product & Process Development (IPPD) effort.		
E. Performance Metrics TBD		

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

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3225: <i>Ordnance PHST</i>	0.000	0.395	0.378	0.000	0.378	0.379	0.000	0.000	0.000	0.000	1.152
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Ordnance Packaging Handling Storage and Transportation (PHST) RDT&E resources focus on developing new Ordnance Handling Equipment (OHE) to replace the 25+ year old equipment presently used by the Fleet for Underway Replenishment (UNREP) operations. This OHE is a high cost and maintenance item. Development of new OHE takes advantage of new technology such as the CH-60 helicopter, which has double the lift capacity of the CH-46. OHE is used daily by the war fighter to conduct Connected Replenishment (CONREP) and Vertical Replenishment (VERTREP). A sample of these efforts includes redesigning the MK 105 sling to increase efficiency during VERTREP, condensing entire families of slings down to fewer and more efficient pieces of gear, developing a stream strongback and the associated equipment necessary to complement, not compromise, the Heavy UNREP initiative of the future, etc. The new sling designs being developed take advantage of present and future manufacturing and operational capabilities. This initiative improves availability, reliability, and maintainability while reducing overall cost. The end result will be a Fleet that has been properly equipped to conduct UNREP with more efficiency.

The PHST Center is developing a baseline of the current naval ordnance PHST logistics system. This baseline will identify inefficiencies and recommend hardware and operational enhancements in the area of modal change, thus providing an investment strategy for future Naval PHST operations by conducting an end-to-end study.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Ordnance PHST Development	0.000	0.395	0.378	0.000	0.378
Develop new Ordnance Handling Equipment (OHE) to replace the 25+ year old equipment presently in Fleet use to include: 1) Re-design Mk 105 Pendant Sling to optimize cost and throughput during Vertical Replenishment; 2) New concept development to replace 12x12 and 14x14 ft. Nylon Cargo Nets ; 3) Design a new STREAM Strongback to compliment the Fleet's Heavy UNREP initiative of the future; 4) Condense Mk 85, 86, 87, and 100 family of pallet slings into fewer pieces gear to optimize					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603739N: <i>Navy Logistic Productivity</i>		PROJECT 3225: <i>Ordnance PHST</i>				
B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>cost and efficiency during CONREP; and 5) Re-design the Mk 45 Handlift Truck. Ordnance Packaging Handling Storage and Transportation (PHST) will additionally conduct a baseline study of the current Naval PHST logistics system to identify inefficiencies and recommend hardware and operational enhancements.</p> <p><i>FY 2010 Plans:</i> Develop new MK-105 Pendant Sling. Develop 8X8, 12X12, and 14X14 ordnance specific nylon cargo nets. Begin baseline work on current PHST Logistics Study, Begin redesign of MK-45 Handlift Truck.</p> <p><i>FY 2011 Base Plans:</i> Design new Heavy Lift Stream Strongback. Condense MK-85 Series Pallet Slings to fewer pieces. Complete redesign of MK-45 Handlift Truck. Develop recommended list of hardware and operational enhancements from Baseline Logistics Study.</p>								
Accomplishments/Planned Programs Subtotals				0.000	0.395	0.378	0.000	0.378
C. Other Program Funding Summary (\$ in Millions)								
N/A								
D. Acquisition Strategy								
Execution of in-house engineering, design, development and test efforts. Performance-based reviews conducted quarterly or as required by the Project Management Office.								
E. Performance Metrics								
<ol style="list-style-type: none"> 1. Reduce procurement costs of current the Mk 105 sling design by 20%. 2. Conduct successful Developmental Testing (DT) of a new Mk 105 Hoisting Sling Design. 3. Reduce Mk 85 series pallet sling requirements by 25%. 4. Establish a PHST logistics baseline and identify 8 points for improvement. 5. Conduct a successful Preliminary Design Review (PDR) for a Heavy Lift STREAM Strongback. 								

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6. Complete Mk 45 Handlift Truck re-design / improvements to dead-man brake system and hoisting mechanism.		

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

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603739N: <i>Navy Logistic Productivity</i>	PROJECT 9999: <i>Congressional Adds</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	15.760	10.756	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	72.208
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: Hawaii National Guard Integrated Information Command System <i>FY 2010 Plans:</i> Provide relevant, real-time situational information to all levels of command from the Hawaii National Guard to Hawaii State Civil Defense to civilian responders in the field.	0.000	1.275
Congressional Add: NSWC Corona Item Unique Identification Center <i>FY 2010 Plans:</i> Develop NSWC Corona Item Unique Identification Center.	0.000	1.434
Congressional Add: Photonic Integration Foundry <i>FY 2010 Plans:</i> Develop enabling photonic integrated circuit technologies required for next generation Navy avionics.	0.000	2.390
Congressional Add: Real-time Tactical Intelligence Collection System	0.000	1.195

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B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
<i>FY 2010 Plans:</i> Improve existing language translation equipment by adding larger vocabularies and more translation capability.		
Congressional Add: UNIQUE IDENTIFICATION OF TANGIBLE ITEMS <i>FY 2009 Accomplishments:</i> Provide a means to track items from cradle to grave and provide the means to track the requirement footprint, streamline vendor payment via the Supply Chain, and provide procurement accountability.	2.991	0.000
Congressional Add: Thin Film Materials for Advanced Applications <i>FY 2009 Accomplishments:</i> Development of X-ray Lithography (XRL) / Collimated Plasma Lithography (CPL) mask materials/ technology. <i>FY 2010 Plans:</i> Continued development of X-ray Lithography (XRL) / Collimated Plasma Lithography (CPL) mask materials/technology.	2.992	1.275
Congressional Add: HIGHLY INTEGRATED OPTICAL INTERCONNECTS FOR ADV AI <i>FY 2009 Accomplishments:</i> Develop optical interconnects integrated into printed circuit boards typically used by the electronics industry.	1.596	0.797

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B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
<i>FY 2010 Plans:</i> Continue to develop optical interconnects integrated into printed circuit boards typically used by the electronics industry.		
Congressional Add: Advanced Naval Logistics <i>FY 2009 Accomplishments:</i> Implementation of commercial software for advanced forecasting and spare parts requirements determination and integration with Navy ERP. <i>FY 2010 Plans:</i> Continued implementation within Navy ERP framework and addressing additional, previously unidentified capabilities requirements. Investigation of applicability of this tool as a standard requirements determination approach for all DOD Services.	1.596	2.390
Congressional Add: RFID Tech Program <i>FY 2009 Accomplishments:</i> Maximize DLA benefits from Automatic Identification Technologies (AIT) through demonstration and assessment projects aligned with DLA distribution center operations in CONUS, OCONUS, and expeditionary locations.	0.798	0.000
Congressional Add: Zero-Standoff HERO-Compliant RFID <i>FY 2009 Accomplishments:</i> Design and development of hardware and software that allow safe testing, certification and implementation of RFID technology for asset visibility, reduced manpower burden and better asset accountability in the supply pipeline.	1.596	0.000

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B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
Congressional Add: Field Support for Fiber Optic Cable <i>FY 2009 Accomplishments:</i> Develop a high quality, low cost field repair technology for fiber optic cables being installed in a number of the Navy's aerospace platforms. Fusion splicing technology is currently used by the commercial telecom industry to repair optical fiber quickly and permanently. This congressional add takes the existing technology and modifies it to work in the military aerospace environment to improve fiber optic logistics footprint.	1.596	0.000
Congressional Add: Integrated Product Support Data Management System <i>FY 2009 Accomplishments:</i> Implementation of material management functions with commercial off-the-shelf systems and standard DOD data systems. Providing timely access to accurate, actionable informatoin across logistics processes which enable real-time situational awareness and execution. Development of supply chain management strategies that promote the use of shared data via an information exchange that supports coordination and collaboration between DOD functions and activities. Implementation of COTS PLM technologies as part of an initiative to improve Navy Maintenance Figure of Merit (MFOM) reporting and Readiness Based Sparing data collection and analyses, and acquisition and modernization proress improvements for platforms under the cognizance of PEO Ships. Accelerate timeliness and quality of NAVSUP ERP implementation.	0.997	0.000
Congressional Add: NAVAIR Distance Support Environment <i>FY 2009 Accomplishments:</i> Identified the requirements for a single, integrated configuration managed Product Data Management (PDM) system that can easily interoperate with existing systems and be used across the Navy Enterprise (Acquisition, Fleet, Maintenance, Supply, Training) that provides an effective fleet	0.798	0.000

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B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
interaction mechanism while simultaneously providing a way to establish, maintain and communicate weapon system product information to the Fleet, the contractor community and NAVAIR.		
Congressional Add: In Transit Visibility <i>FY 2009 Accomplishments:</i> Implentation and integration of ePortation real time work flow management tools with existing systems and processes to improve and augment capabilities of the military logistician. Provide real time tracking and management of all materiel and compatability with both active and passive RFID systems, eliminating error, increasing accuracy and efficiency of cargo tracking.	0.800	0.000
Congressional Adds Subtotals	15.760	10.756
C. Other Program Funding Summary (\$ in Millions)		
N/A		
D. Acquisition Strategy		
Not required for Congressional Adds		
E. Performance Metrics		
Not required for Congressional Adds		

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