

UNCLASSIFIED

FY 2010 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: May 2009

BUDGET ACTIVITY: 07
PROGRAM ELEMENT: 0708011N
PROGRAM ELEMENT TITLE: INDUSTRIAL PREPAREDNESS

COST: (Dollars in Millions)

Project Number & Title	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate
Total PE	56.862	61.693	56.691
1050 MANUFACTURING TECHNOLOGY	54.933	56.507	56.691
9999 CONGRESSIONAL PLUS-UPS	1.929	5.186	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Manufacturing Technology (ManTech) program is intended to improve the productivity and responsiveness of the U.S. defense industrial base by funding the development and transition of leading edge manufacturing technologies. The ManTech program is executed through a Center of Excellence (COE) strategy. A majority of the COEs are consortium based with only a small group of technical and management personnel at the center. ManTech projects are primarily performed by industry participants that bill the COE which, in turn, bills the Navy which causes a non-traditional financial execution profile for the program. The program therefore does not meet traditional execution benchmarks. The ManTech program, by providing seed funding for the development of moderate to high risk process and equipment technology, permits contractors to upgrade their manufacturing capabilities. Ultimately, the program aims to produce high-quality weapon systems with shorter lead times and reduced acquisition costs.

Due to the number of efforts in this PE, the programs described herein are representative of the work included in this PE.

UNCLASSIFIED

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Exhibit R-2

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B. PROGRAM CHANGE SUMMARY:

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
President's Budget 2009	57.313	56.681	58.589
Congressional Program Reductions	0.000	-0.168	0.000
Program Adjustments	0.000	0.000	-1.917
Rate/Misc Adjustments	0.000	-0.020	0.019
SBIR/STTR Transfer	-0.451	0.000	0.000
Total Congressional Increases	0.000	5.200	0.000
President's Budget 2010	56.862	61.693	56.691

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Efforts have been focused on the Integrated Systems Investment Strategy platforms: DDG 1000, CVN 21, Littoral Combat Ship (LCS), and the Virginia Class Submarine (VCS) as well as aircraft / other programs. Due to a change in strategy in FY 2007, FY 2008 and the outyears increasingly focus on affordability efforts for DDG-1000, CVN-21, LCS, and VCS with some concentration on improvements for non-ship systems.

E. PERFORMANCE METRICS:

The ManTech program's overall goal is to transition production technology to reduce the cost of Navy weapons systems. Metrics are currently collected on the cost savings per hull and for the class for each of the 4 primary shipbuilding platforms, DDG-1000, CVN-21, LCS and VCS.

UNCLASSIFIED

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PROGRAM ELEMENT TITLE: INDUSTRIAL PREPAREDNESS

PROJECT TITLE: MANUFACTURING TECHNOLOGY

COST: (Dollars in Millions)

Project Number & Title	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate
1050 MANUFACTURING TECHNOLOGY	54.933	56.507	56.691

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The ManTech Program is intended to improve the productivity and responsiveness of the U.S. defense industrial base by funding the development of manufacturing technologies. Major areas of endeavor both underway and planned include: advanced manufacturing technology for metalworking, joining, electronics and electro-optics, composites, shipbuilding, and above-the-factory-floor business operations technology. The ManTech Program is aimed at assisting acquisition programs in meeting performance and affordability goals by inserting manufacturing process solutions early into the design phase.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
COMPOSITES PROCESSING AND FABRICATION	6.000	6.000	6.000

The primary technical goal of the Composites Processing and Fabrication activity is improving weapon systems affordability, enhancing weapon system effectiveness and improving reliability / war-fighter readiness through the increased utilization of composite materials and structures. This is being achieved through the development and maturation of affordable, robust manufacturing and assembly processes that fully exploit the benefits of composite materials. Concentration in FY 2008 and the outyears is on composites processing for the following four platforms: DDG-1000, CVN-21, VCS, and LCS although ManTech will continue to develop composites manufacturing technology for high priority air platforms.

UNCLASSIFIED

FY 2010 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

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PROJECT TITLE: MANUFACTURING TECHNOLOGY

FY 2008 Accomplishments:

- Continued Composite Materials and Process Improvement Thrust for VCS Shipbuilding Affordability Initiative. Includes continuation of Composite Sail Cusp; and continuation of VCS Impeller.
- Continued other composites thrusts (formerly projects) to address improvements / affordability of DDG-1000, CVN-21, VCS, and other acquisition program offices.
- Continued Composite Materials and Process Improvement Thrust for DDG-1000 Shipbuilding Affordability Initiative. Includes continuation of DDG-1000 Helodeck Stiffeners Affordability; and continuation of DDG-1000 Radomes Affordability.
- Continued Composite Materials and Process Improvement Thrust for CVN-21 Shipbuilding Affordability Initiative.
- Continued Composite Materials and Process Improvement Thrust for Air Platforms. Includes continuation of Composite Frame Manufacturing Technology - V-22 and H-53; and completion of Titanium-Graphite for F/A-18 Engine Bay Doors.

FY 2009 Plans:

- Continue Composite Materials and Process Improvement Thrust for VCS Shipbuilding Affordability Initiative. Includes completion of Composite Sail Cusp and VCS Impeller and continuation / initiation of efforts to develop / optimize composite materials fabrication technology for reduced cost VCS construction.
- Continue other composites thrusts (formerly projects) to address improvements / affordability of DDG-1000, CVN-21, VCS, and other acquisition program offices.
- Continue Composite Materials and Process Improvement Thrust for DDG-1000 Shipbuilding Affordability Initiative.
- Continue Composite Materials and Process Improvement Thrust for CVN-21 Shipbuilding Affordability Initiative.
- Continue Composite Materials and Process Improvement Thrust for Air Platforms. Includes completion of Composite Frame Manufacturing Technology - V-22 and H-53 and continuation / initiation of efforts to develop / optimize composite materials fabrication technology for reduced cost Air Platform construction.

UNCLASSIFIED

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FY 2010 Plans:

- Continue Composite Materials and Process Improvement Thrust for VCS Shipbuilding Affordability Initiative. Includes continuation of efforts to develop / optimize composite materials fabrication technology for reduced cost VCS construction.
- Continue Composite Materials and Process Improvement Thrust for DDG-1000 Shipbuilding Affordability Initiative.
- Continue Composite Materials and Process Improvement Thrust for CVN-21 Shipbuilding Affordability Initiative.
- Continue Composite Materials and Process Improvement Thrust for Air Platforms. Includes continuation of efforts to develop / optimize composite materials fabrication technology for reduced cost Air Platform construction.
- Complete other composites thrusts (formerly projects) to address improvements / affordability of DDG-1000, CVN-21, VCS, and other acquisition program offices.

	FY 2008	FY 2009	FY 2010
CORPORATE INVESTMENTS	10.706	12.167	12.481

The Corporate Investments activity is focused on accelerating defense industrial enterprise progress toward implementation of world-class industrial practices as well as advanced design and information systems that support weapon system development, production, and sustainment. Key emphasis areas include: 1) Benchmarking and accelerating the implementation of world-class industrial practices throughout the contractor base; 2) Demonstrating and validating advanced business practices and information technologies capable of streamlining management functions in all industrial base tiers; and 3) Leveraging information technologies in pursuit of tighter coupling of all defense industrial enterprise elements. Corporate Investment efforts create improvements to cost and cycle time for weapon system development, production, and repair. Additionally, Corporate Investments include the funding of recently identified near-term high priority shipbuilding affordability efforts for the four major platforms - DDG-1000, CVN-21, VCS, and LCS.

The funding increase from FY 2008 to FY 2009 supports the new Shipbuilding Affordability Strategy requirement.

UNCLASSIFIED

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FY 2008 Accomplishments:

- Continued Near-Term High Priority Shipbuilding Affordability Thrust for CVN-21. Includes Light Activated Semiconductor Switches, HSLA-115 Evaluation and Implementation Support, and Digital Radiography Support.
- Continued Near-Term High Priority Shipbuilding Affordability Thrust for LCS.
- Continued efforts to improve the Navy industrial base through above-the-factory-floor enhancements and supply chain processes / technology improvements for Navy weapon system acquisition programs such as the DDG-1000, CVN 21, LCS, VCS, and others.
- Completed Best Manufacturing Practices efforts in surveys, the Program Manager's Workstation, and Collaborative Work Environment.
- Initiated Near-Term, High Priority Shipbuilding Affordability Thrust for DDG-1000. Includes Pallet Manufacturing Process Modeling, Power Electronic Module Cost Out effort, and SiGe-based System-on-Chip Low Cost / Weight Phased Array Antennas.
- Initiated Near-Term High Priority Shipbuilding Affordability Thrust for VCS. Includes Design for Production Process Improvement, Automated Install of Studs, Deckplate Construction Information Network, Outfitting Process Improvement, and VCS Material Management.
- Initiated Benchmarking and Best Practices effort to identify, validate, and disseminate best-in-class practices, processes, and technologies to help improve the competitiveness of the defense industrial base and the affordability / performance of Navy and defense platforms and weapon systems.

FY 2009 Plans:

- Continue Near-Term High Priority Shipbuilding Affordability Thrust for CVN-21.
- Continue Near-Term High Priority Shipbuilding Affordability Thrust for LCS.
- Continue efforts to improve the Navy industrial base through above-the-factory-floor enhancements and supply chain processes / technology improvements for Navy weapon system acquisition programs such as the DDG-1000, CVN 21, LCS, VCS, and others.
- Continue Near-Term, High Priority Shipbuilding Affordability Thrust for DDG-1000.
- Continue Near-Term High Priority Shipbuilding Affordability Thrust for VCS. Includes completion of Design for Production Process Improvement, Automated Install of Studs, Deckplate Construction Information Network (renamed Paperless Deckplate MIP OQE Data Capture), Outfitting Process Improvement, and VCS Material Management and initiation of additional near-term high priority shipbuilding affordability efforts for VCS. Also includes initiation of Low Cost Impeller Support effort for Navy submarines / aircraft carriers and for shafts for Navy surface combatants.

UNCLASSIFIED

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Exhibit R-2a

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-Continue Benchmarking and Best Practices effort to identify, validate, and disseminate best-in-class practices, processes, and technologies to help improve the competitiveness of the defense industrial base and the affordability / performance of Navy and defense platforms and weapon systems.

FY 2010 Plans:

- Continue Near-Term High Priority Shipbuilding Affordability Thrust for CVN-21.
- Continue Near-Term High Priority Shipbuilding Affordability Thrust for LCS.
- Continue efforts to improve the Navy industrial base through above-the-factory-floor enhancements and supply chain processes / technology improvements for Navy weapon system acquisition programs such as the DDG-1000, CVN 21, LCS, VCS, and others.
- Continue Near-Term, High Priority Shipbuilding Affordability Thrust for DDG-1000.
- Continue Near-Term High Priority Shipbuilding Affordability Thrust for VCS.
- Continue Benchmarking and Best Practices effort to identify, validate, and disseminate best-in-class practices, processes, and technologies to help improve the competitiveness of the defense industrial base and the affordability / performance of Navy and defense platforms and weapon systems.

	FY 2008	FY 2009	FY 2010
ELECTRONICS PROCESSING AND FABRICATION	10.000	10.000	10.000

Electronics Processing and Fabrication efforts develop and deploy affordable, robust manufacturing processes and capabilities for electronics critical to defense applications over their full life cycle. Efforts create new and improved manufacturing processes on the shop floor, as well as repair and maintain facilities such as depots and logistics centers, with a strong emphasis on process maturation. Emphasis in FY 2008 and outyears is on shipbuilding affordability for four major platforms: DDG-1000, CVN-21, VCS, and LCS, with some funding geared towards toward electronics / electro-optics improvements for high priority air platforms.

FY 2008 Accomplishments:

- Continued Electronics / Electro-Optics Thrust for VCS Affordability Initiative. Includes continuation of Conformal Acoustic Velocity Sensor (CAVES) for VCS.
- Continued Electronics / Electro-Optics Thrust for LCS Shipbuilding Affordability Initiative. Includes

R1 Line Item 216

Page 7 of 15

UNCLASSIFIED

UNCLASSIFIED

FY 2010 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

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continuation of LCS Reconfigurable Antenna.

- Continued advanced electronics and electro-optics efforts / thrusts to address improvements / affordability for DDG-1000, CVN-21, VCS, LCS, F/A-18, EA-18G, and others.
- Continued Electronics / Electro-Optics Thrust for Air Platforms. Includes continuation of Multispectral Mid-Infrared (IR) Lasers for Directional Infrared Counter Measures (DIRCM); completion of Helmet Mounted Display Visor; and completion of Digital Heads-Up Display.
- Continued Electronics / Electro-Optics Thrust for DDG-1000 Shipbuilding Affordability Initiative. Includes continuation of DDG-1000 Remote Source Lighting; continuation of SiGE-Based System-on-Chip for Low-Cost Weight Phased Array Antennas; and continuation of High-G Packaging and Miniaturization for Deeply Integrated Inertial Guidance Units.
- Continued Electronics / Electro-Optic Thrust for CVN-21 Shipbuilding Affordability Initiative. Includes continuation of High-Power Carbide PiN Diode Manufacturing.
- Initiated and completed effort to determine applicability and performance capability of fiber optic acoustic sensors to reliably detect underwater swimmers approaching ships in port locations. (Underwater Swimmer Detection System)

FY 2009 Plans:

- Continue Electronics / Electro-Optics Thrust for VCS Affordability Initiative. Includes completion of Conformal Acoustic Velocity Sensor CAVES for VCS and initiation of improved affordable electronics / electro-optics efforts.
- Continue Electronics / Electro-Optics Thrust for LCS Shipbuilding Affordability Initiative. Includes completion of LCS Reconfigurable Antenna.
- Continue advanced electronics and electro-optics efforts / thrusts to address improvements / affordability for DDG-1000, CVN-21, VCS, LCS, F/A-18, EA-18G, and others.
- Continue Electronics / Electro-Optics Thrust for Air Platforms. Includes continuation of Multispectral Mid-IR Lasers for DIRCM and initiation of electronics / electro-optics efforts to improve affordability for Air Platforms.
- Continue Electronics / Electro-Optics Thrust for DDG-1000 Shipbuilding Affordability Initiative. Includes radar / communications efforts to impact DDG 1000 affordability. Includes completion of DDG-1000 Remote Source Lighting and High-G Packaging and Miniaturization for Deeply Integrated Inertial Guidance Units.
- Continue Electronics / Electro-Optic Thrust for CVN-21 Shipbuilding Affordability Initiative. Includes completion of High-Power Carbide PiN Diode Manufacturing.

UNCLASSIFIED

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PROGRAM ELEMENT: 0708011N

PROJECT NUMBER: 1050

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FY 2010 Plans:

- Continue Electronics / Electro-Optics Thrust for VCS Affordability Initiative. Includes continuation of improved affordable electronics / electro-optics efforts.
- Continue Electronics / Electro-Optics Thrust for LCS Shipbuilding Affordability Initiative.
- Continue Electronics / Electro-Optics Thrust for Air Platforms. Includes completion of Multispectral Mid-IR Lasers for DIRCM and continuation of electronics / electro-optics efforts to improve affordability for Air Platforms.
- Continue Electronics / Electro-Optics Thrust for DDG-1000 Shipbuilding Affordability Initiative. Includes radar/communications efforts to impact DDG 1000 affordability. Includes completion of SiGE-Based System-on-Chip for Low-Cost Weight Phased Array Antennas.
- Continue Electronics / Electro-Optic Thrust for CVN-21 Shipbuilding Affordability Initiative. Includes initiation of electronics / electro-optics efforts to improve affordability for CVN-21.
- Complete advanced electronics and electro-optics efforts / thrusts to address improvements / affordability for DDG-1000, CVN-21, VCS, LCS, F/A-18, EA-18G, and others.

	FY 2008	FY 2009	FY 2010
METALS PROCESSING AND FABRICATION	18.000	18.000	18.000

The objective of the Metals Processing and Fabrication activity is to develop affordable, robust manufacturing processes and capabilities for metals and special materials critical to defense weapon system applications. Major areas that support this objective include: processing methods, special materials, joining, and inspection and compliance. These efforts directly impact the cost and performance of future aircraft, rotorcraft, land combat vehicles, surface and subsurface naval platforms, space systems, artillery and ammunition, and defense industry manufacturing equipment. Emphasis in FY 2008 and outyears is on shipbuilding affordability for four major platforms: DDG-1000, CVN-21, VCS, and LCS, with some funding geared toward metals processing and fabrication improvements for high priority air platforms.

FY 2008 Accomplishments:

- Continued Schedule Compression / Production Engineering Thrust for VCS Shipbuilding Affordability Initiative. Includes continuation of VCS Material Management; and continuation of Design for Production

R1 Line Item 216

Page 9 of 15

UNCLASSIFIED

UNCLASSIFIED

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Exhibit R-2a

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PROGRAM ELEMENT: 0708011N

PROJECT NUMBER: 1050

PROGRAM ELEMENT TITLE: INDUSTRIAL PREPAREDNESS

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Process Improvement.

- Continued Outfitting Thrust for VCS Shipbuilding Affordability Initiative. Includes continuation of Outfitting Process Improvement.
- Continued rapid response and teaching factory activities.
- Continued Metals Materials and Process Improvement Thrust for DDG-1000 Shipbuilding Affordability Initiative. Includes continuation of DDG-1000 Advanced Bonding Methods for Steel Structures; continuation of Low Cost Pallet Systems for DDG-1000 AGS; continuation of DDG-1000 Improved Tee Sections for High-Strength Steel Structures; continuation of Coating Application Improvement - formerly High Solids Coatings on DDG-1000; and continuation of PVL5 Hull Integration (formerly Large Marine Structure Hull Integration).
- Continued Metals Materials and Process Improvement Thrust for CVN-21 Shipbuilding Affordability Initiative. Includes continuation of Ballistic 10% Ni Steel; continuation of Laser Welded Lightweight Panel Structure Fabrication - NMC; continuation of Advanced Surface Ship Watertight Enclosures; continuation of Alloy 625 Formability for Future Carriers; continuation of CVN Preparation Methods for Coating Tanks; and continuation of Optimization of CVN-21 Power Unit Assembly Facility and Carrier Visual Build.
- Continued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Affordability Initiative. Includes continuation of Improved Dimensional Accuracy for LCS; continuation of LCS Paint Facility Design; and continuation of Low Cost FSW of Aluminum for LCS Applications.
- Continued Metals Materials and Process Improvement Thrust for VCS Shipbuilding Affordability Initiative. Includes continuation of SSN Alloy 625 Pipe Welding; continuation of SSN-774 Damping Material Application; continuation of SSN Alternative Pipe Joining and Fittings; and continuation of Laser Cladding for Submarines.
- Continued Metal Materials and Process Improvements Thrust for Other Ship / Naval Sea Systems Command (NAVSEA) Platforms.
- Continued Metals Materials and Process Improvement Thrust for Air Platforms. Includes continuation of Corrosion Resistant Coatings for Magnesium Transmission Gearboxes; continuation of Translational Friction Weld Repair of Blinks; continuation of Erosion Resistant Coatings for Stage 1 Compressor Components; and continuation of N-UCAS Structural Design and Manufacturing Development.
- Continued Metal Materials and Process Improvements Thrust for Marine Corps Systems.

FY 2009 Plans:

- Continue Schedule Compression / Production Engineering Thrust for VCS Shipbuilding Affordability Initiative.
- Continue Outfitting Thrust for VCS Shipbuilding Affordability Initiative.
- Continue rapid response and teaching factory activities.
- Continue Metals Materials and Process Improvement Thrust for DDG-1000 Shipbuilding Affordability Initiative.

R1 Line Item 216

Page 10 of 15

UNCLASSIFIED

UNCLASSIFIED

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Exhibit R-2a

DATE: May 2009

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PROGRAM ELEMENT: 0708011N

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PROJECT NUMBER: 1050

PROJECT TITLE: MANUFACTURING TECHNOLOGY

Includes completion of DDG-1000 Advanced Bonding Methods for Steel Structures; completion of Low Cost Pallet Systems for DDG-1000 AGS; completion of Coating Application Improvement - formerly High Solids Coatings on DDG-1000; and completion of PVLs Hull Integration (formerly Large Marine Structure Hull Integration). Metallic materials and process efforts for DDG 1000 include material characterization for optimum processing and fabrication as well as process optimization (welding, bonding, machining, etc.) resulting in reduced cost of fabrication for DDG 1000 components.

- Continue Metals Materials and Process Improvement Thrust for CVN-21 Shipbuilding Affordability Initiative.

Includes completion of CVN Preparation Methods for Coating Tanks and completion of Optimization of CVN-21 Power Unit Assembly Facility and Carrier Visual Build. Metallic materials and process efforts for CVN 21 include material characterization for optimum processing and fabrication as well as process optimization (welding, bonding, machining, etc.) resulting in reduced cost of fabrication for CVN 21 components.

- Continue Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Affordability Initiative.

- Continue Metals Materials and Process Improvement Thrust for VCS Shipbuilding Affordability Initiative.

Includes completion of SSN Alloy 625 Pipe Welding; completion of SSN-774 Damping Material Application; and completion of Laser Cladding for Submarines. Metallic materials and process efforts for VCS include material characterization for optimum processing and fabrication as well as process optimization (welding, bonding, machining, coating / cladding, etc.) resulting in reduced cost of fabrication for VCS components.

- Continue Metal Materials and Process Improvements Thrust for Other Ship / NAVSEA Platforms.

- Continue Metals Materials and Process Improvement Thrust for Air Platforms.

- Continue Metal Materials and Process Improvements Thrust for Marine Corps Systems.

FY 2010 Plans:

- Continue Schedule Compression / Production Engineering Thrust for VCS Shipbuilding Affordability Initiative.

- Continue Outfitting Thrust for VCS Shipbuilding Affordability Initiative.

- Continue rapid response and complete teaching factory activities.

- Continue Metals Materials and Process Improvement Thrust for DDG-1000 Shipbuilding Affordability Initiative. Metallic materials and process efforts for DDG-1000 include material characterization for optimum processing and fabrication as well as process optimization (welding, bonding, machining, etc.) resulting in reduced cost of fabrication for DDG 1000 components.

- Continue Metals Materials and Process Improvement Thrust for CVN-21 Shipbuilding Affordability Initiative.

Metallic materials and process efforts for CVN 21 include material characterization for optimum processing and fabrication as well as process optimization (welding, bonding, machining, etc.) resulting in reduced cost of fabrication for CVN 21 components.

UNCLASSIFIED

FY 2010 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: May 2009

BUDGET ACTIVITY: 07

PROGRAM ELEMENT: 0708011N

PROGRAM ELEMENT TITLE: INDUSTRIAL PREPAREDNESS

PROJECT NUMBER: 1050

PROJECT TITLE: MANUFACTURING TECHNOLOGY

- Continue Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Affordability Initiative.
- Continue Metals Materials and Process Improvement Thrust for VCS Shipbuilding Affordability Initiative. Metallic materials and process efforts for VCS include material characterization for optimum processing and fabrication as well as process optimization (welding, bonding, machining, coating / cladding, etc.) resulting in reduced cost of fabrication for VCS components.
- Continue Metal Materials and Process Improvements Thrust for Other Ship / NAVSEA Platforms.
- Continue Metals Materials and Process Improvement Thrust for Air Platforms.
- Continue Metal Materials and Process Improvements Thrust for Marine Corps Systems.

	FY 2008	FY 2009	FY 2010
OTHER (SHIPBUILDING, REPAIR TECH, ENERGETICS, AND TECHNICAL ENGINEERING SUPPORT)	10.227	10.340	10.210

The "Other" activity includes shipbuilding technology, repair technology, energetics, and technical engineering support. Shipbuilding technology primarily addresses the development of manufacturing process improvements for shipyards and is geared towards affordability efforts for four ship platforms: DDG-1000, CVN-21, VIRGINIA Class Submarine (VCS), and Littoral Combat Ship (LCS). Repair technology addresses repair, overhaul, and sustainment functions that emphasize remanufacturing processes and advancing technology. Energetics efforts concentrate on developing energetics solutions to ensure the availability of safe, affordable, and quality energetics products largely in support of Program Executive Office (PEO) Integrated Warfare Systems (IWS).

FY 2008 Accomplishments:

- Continued Shipbuilding Affordability Thrust for CVN-21.
- Continued Shipbuilding Affordability Thrust for VCS.
- Continued Shipbuilding Affordability Thrust for LCS. Includes completion of Internal Supply Chain - Marinette Marine.
- Continued Shipbuilding Affordability Thrust for DDG-1000.
- Continued Shipbuilding Thrust for Other Ship / NAVSEA Platforms.
- Continued Repair Technology Thrust for repair and sustainment of Navy weapons systems. Includes continuation of Repair Technology projects based on high priority depot needs.

UNCLASSIFIED

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- Continued Energetics Thrust for PEO IWS and Other Acquisition Programs. Includes continuation of Flexible Manufacturing of Nitrogen Based Gun Propellants; and continuation of energetics efforts to support PEO IWS and other acquisition programs.
- Continued to provide technical engineering support for the ManTech Program.

FY 2009 Plans:

- Continue Shipbuilding Affordability Thrust for CVN-21.
- Continue Shipbuilding Affordability Thrust for VCS.
- Continue Shipbuilding Affordability Thrust for LCS.
- Continue Shipbuilding Affordability Thrust for DDG-1000.
- Continue Shipbuilding Thrust for Other Ship / NAVSEA Platforms.
- Continue Repair Technology Thrust for repair and sustainment of Navy weapons systems. Includes continuation of Repair Technology projects based on high priority depot needs.
- Continue Energetics Thrust for PEO IWS and Other Acquisition Programs. Includes completion of Flexible Manufacturing of Nitrogen Based Gun Propellants; and continuation of energetics efforts to support PEO IWS and other acquisition programs.
- Continue to provide technical engineering support for the ManTech Program.

FY 2010 Plans:

- Continue Shipbuilding Affordability Thrust for CVN-21.
- Continue Shipbuilding Affordability Thrust for VCS.
- Continue Shipbuilding Affordability Thrust for LCS.
- Continue Shipbuilding Affordability Thrust for DDG-1000.
- Continue Shipbuilding Thrust for Other Ship / NAVSEA Platforms.
- Continue Repair Technology Thrust for repair and sustainment of Navy weapons systems. Includes continuation of Repair Technology projects based on high priority depot needs.
- Continue Energetics Thrust for PEO IWS and Other Acquisition Programs. Includes continuation of energetics efforts to support PEO IWS and other acquisition programs.
- Continue to provide technical engineering support for the ManTech Program.

UNCLASSIFIED

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C. OTHER PROGRAM FUNDING SUMMARY - NAVY RELATED RDT&E:

Not applicable.

OTHER PROGRAM FUNDING SUMMARY - NON-NAVY RELATED RDT&E:

PE 0708045A End Item Industrial Preparedness Activities

PE 0708011S Industrial Preparedness

PE 0708611F Support Systems Development

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2010 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

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PROJECT TITLE: CONGRESSIONAL PLUS-UPS

CONGRESSIONAL PLUS-UPS:

	FY 2008	FY 2009
E-BEAM FREE FORM REPAIR QUALIFICATION	0.000	1.197

	FY 2008	FY 2009
IMPROVED ADVANCED WATERTIGHT DOOR (IAWD) FOR NAVY SURFACE SHIPS	0.965	0.000

	FY 2008	FY 2009
NEXT GENERATION SCALABLE LEAN MANUFACTURING INITIATIVE	0.000	2.393

	FY 2008	FY 2009
OUT OF AUTOCLAVE COMPOSITE PROCESSING	0.000	1.596

	FY 2008	FY 2009
U.S. NAVY NUCLEAR POWER PLANT AND SHIP PROPULSION SHAFT MANUFACTURING IMPROVEMENT	0.964	0.000