

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy	Date: February 2015
---	----------------------------

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0708011N / <i>Industrial Preparedness</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	256.968	48.795	37.169	-	-	-	-	-	-	-	-	342.932
1050: <i>Manufacturing Tech</i>	256.968	48.795	37.169	-	-	-	-	-	-	-	-	342.932

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.

For FY 2016 funding has been re-aligned to new PE 0603680N Manufacturing Technology Program.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	50.933	37.169	54.987	-	54.987
Current President's Budget	48.795	37.169	-	-	-
Total Adjustments	-2.138	-	-54.987	-	-54.987
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.138	-			
• Program Adjustments	-	-	-5.408	-	-5.408
• Rate/Misc Adjustments	-	-	-49.579	-	-49.579

Change Summary Explanation

Technical: Not applicable.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0708011N / <i>Industrial Preparedness</i>	
Schedule: Not applicable.		

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0708011N / <i>Industrial Preparedness</i>				Project (Number/Name) 1050 / <i>Manufacturing Tech</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
1050: <i>Manufacturing Tech</i>	256.968	48.795	37.169	-	-	-	-	-	-	-	-	342.932
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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.

For FY 2016 funds have been re-aligned to new PE 0603680N Manufacturing Technology Program.

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

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: COMPOSITES PROCESSING AND FABRICATION	5.669	3.750	-	-	-
Articles:	-	-	-	-	-
<p>Description: 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 is on affordability for the following platforms: DDG-51, CVN-78 Class Carrier, VIRGINIA Class Submarine (VCS) / OHIO Replacement Program (ORP), Littoral Combat Ship (LCS), Joint Strike Fighter (JSF), and, starting in FY16, CH-53-K.</p> <p>Funding for FY 2016 and beyond has been re-aligned to new PE 0603680N. At this R2A level, FY 2016 Funding of \$4.800M from Composites Processing and Fabrication in this PE has been re-aligned to PE 0603680N Composites Processing and Fabrication.</p> <p>FY 2014 Accomplishments:</p> <ul style="list-style-type: none"> - Continued 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. - Continued Composite Materials and Process Improvement Thrust for DDG-51 Shipbuilding Affordability Initiative. 					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015			
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0708011N / Industrial Preparedness		Project (Number/Name) 1050 / Manufacturing Tech		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<div>- Continued Composite Materials and Process Improvement Thrust for CVN-78 Shipbuilding Affordability Initiative.</div> <div>- Continued Composite Materials and Process Improvement Thrust for Air Platforms, including the Joint Strike Fighter (JSF).</div> <div>- Continued Composite Materials and Process Improvement Thrust for LCS Shipbuilding Affordability Initiative</div> <div>FY 2015 Plans:</div> <div>- Continue all FY 2014 efforts unless otherwise noted as complete.</div> <div>- Complete 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.</div> <div>- Initiate Composite Materials and Process Improvement Thrust for VCS/ORP Shipbuilding Affordability Initiative.</div> <div>FY 2016 Base Plans:</div> <div>Funds have been re-aligned to new PE 0603680N Manufacturing Technology Program.</div> <div>At this R2A level, FY 2016 Funding of \$4.800M from Composites Processing and Fabrication in this PE has been re-aligned to PE 0603680N Composites Processing and Fabrication.</div> <div>FY 2016 OCO Plans:</div> <div>N/A</div>						
Title: CORPORATE INVESTMENTS		6.626	4.319	-	-	-
Articles:		-	-	-	-	-
Description: 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 affordability efforts for the following affordability platforms: DDG-51, CVN-78 Class Carrier, VIRGINIA Class Submarine (VCS), Littoral Combat Ship (LCS), Joint Strike Fighter (JSF), and, starting in FY16, CH-53-K.						

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015		
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0708011N / Industrial Preparedness		Project (Number/Name) 1050 / Manufacturing Tech		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Funding for FY 2016 and beyond has been re-aligned to new PE 0603680N. At this R2A level, FY 2016 Funding of \$3.581M from Corporate Investments in this PE has been re-aligned to PE 0603680N Manufacturing Enterprise/Other.						
FY 2014 Accomplishments: - Continued Near-Term High Priority Shipbuilding Affordability Thrust for CVN-78. - 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-51, CVN-78, LCS, VCS, and others. - Continued Near-Term, High Priority Shipbuilding Affordability Thrust for DDG-51. - Continued Near-Term High Priority Shipbuilding Affordability Thrust for VCS. - Initiated Near-Term High Priority Affordability Thrust for JSF.						
FY 2015 Plans: -Continue all FY 2014 efforts unless otherwise noted as complete. -Complete Near-Term High Priority Shipbuilding Affordability Thrust for VCS. -Initiate Near-Term High Priority Shipbuilding Affordability Thrust for VCS/ORP.						
FY 2016 Base Plans: Funds have been re-aligned to new PE 0603680N Manufacturing Technology Program. At this R2A level, FY 2016 Funding of \$3.581M from Corporate Investments in this PE has been re-aligned to PE 0603680N Manufacturing Enterprise/Other.						
FY 2016 OCO Plans: N/A						
Title: ELECTRONICS PROCESSING AND FABRICATION		10.000	8.050	-	-	-
Articles:		-	-	-	-	-
Description: 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 is on affordability for the following shipbuilding platforms: DDG-51, CVN-78 Class Carrier, VIRGINIA Class Submarine (VCS) / OHIO Replacement Program (ORP), and Littoral Combat Ship (LCS), Joint Strike Fighter (JSF), and, starting in FY16, CH-53-K.						

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015			
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0708011N / Industrial Preparedness		Project (Number/Name) 1050 / Manufacturing Tech		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Funding for FY 2016 and beyond has been re-aligned to new PE 0603680N. At this R2A level, FY 2016 Funding of \$10.543M from Electronic Processing and Fabrication in this PE has been re-aligned to PE 0603680N Electronics Processing and Fabrication.						
FY 2014 Accomplishments: - Continued Electronics/Electro-Optics Thrust for VCS Affordability Initiative. Includes continuation of improved affordable electronics/ electro-optics efforts. - Continued Electronics/Electro-Optics Thrust for LCS Shipbuilding Affordability Initiative. - Continued Electronics/Electro-Optics Thrust for Air Platforms, including the Joint Strike Fighter (JSF). Includes continuation of electronics/ electro-optics efforts to improve affordability for Air Platforms. - Continued Electronics/Electro-Optics Thrust for DDG-51 Shipbuilding Affordability Initiative. Includes radar/ communications efforts to impact DDG-51 affordability. - Continued Electronics/Electro-Optic Thrust for CVN-78 Shipbuilding Affordability Initiative. Includes continuation of electronics/electrooptics efforts to improve affordability for CVN-78 Class Carrier.						
FY 2015 Plans: - Continue all FY 2014 efforts unless otherwise noted as complete. - Complete Electronics/Electro-Optics Thrust for VCS Affordability Initiative. Includes continuation of improved affordable electronics/electro-optics efforts. - Initiate Electronics/Electro-Optics Thrust for VCS/ORP Affordability Initiative. Includes electronics/electro-optics efforts to improve affordability for VCS/ORP.						
FY 2016 Base Plans: Funds have been re-aligned to new PE 0603680N Manufacturing Technology Program. At this R2A level, FY 2016 Funding of \$10.543M from Electronic Processing and Fabrication in this PE has been re-aligned to PE 0603680N Electronics Processing and Fabrication.						
FY 2016 OCO Plans: N/A						
Title: METALS PROCESSING AND FABRICATION		16.100	10.950	-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015			
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0708011N / Industrial Preparedness		Project (Number/Name) 1050 / Manufacturing Tech		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Articles:		-	-	-	-	-
<p>Description: 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 is on affordability for the following platforms: DDG-51, CVN-78 Class Carrier, VIRGINIA Class Submarine (VCS) / OHIO Replacement Program (ORP), Littoral Combat Ship (LCS), Joint Strike Fighter (JSF), and, starting in FY16, CH-53-K.</p> <p>Funding for FY 2016 and beyond has been re-aligned to new PE 0603680N. At this R2A level, FY 2016 Funding of \$16.700M from Metals Processing and Fabrication in this PE has been re-aligned to two activities within PE 0603680N: \$15.500M Metals Processing and Fabrication, \$1.200M Manufacturing Enterprise/Other.</p> <p>FY 2014 Accomplishments:</p> <ul style="list-style-type: none">- Continued schedule Compression/Production Engineering Thrust for VCS Shipbuilding Affordability Initiative.- Continued outfitting Thrust for VCS Shipbuilding Affordability Initiative.- Continued rapid response efforts.- Continued Metals Materials and Process Improvement Thrust for DDG-51 Shipbuilding Affordability Initiative. Metallic materials and process efforts for DDG-51 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-51 components.- Continued Metals Materials and Process Improvement Thrust for CVN-78 Shipbuilding Affordability Initiative. Metallic materials and process efforts for CVN 78 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 78 components.- Continued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Affordability Initiative.- Continued 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.- Continued Metal Materials and Process Improvements Thrust for Other Ship/NAVSEA Platforms.- Continued Metals Materials and Process Improvement Thrust for Air Platforms.						

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015			
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0708011N / Industrial Preparedness	Project (Number/Name) 1050 / Manufacturing Tech			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<p>- Continued Metal Materials and Process Improvements Thrust for Marine Corps Systems.</p> <p>FY 2015 Plans:</p> <p>- Continue all FY 2014 efforts unless otherwise noted as complete.</p> <p>- Complete Metals Materials and Process Improvement Thrust for VCS Shipbuilding Affordability Initiative.</p> <p>- Initiate Metals Materials and Process Improvement Thrust for VCS/ORP initiative.</p> <p>FY 2016 Base Plans:</p> <p>Funds have been re-aligned to new PE 0603680N Manufacturing Technology Program.</p> <p>At this R2A level, FY 2016 Funding of \$16.700M from Metals Processing and Fabrication in this PE has been re-aligned to two activities within PE 0603680N: \$15.500M Metals Processing and Fabrication, \$1.200M Manufacturing Enterprise/Other.</p> <p>FY 2016 OCO Plans:</p> <p>N/A</p>						
<p>Title: OTHER (SHIPBUILDING, REPAIR TECH, ENERGETICS, AND TECHNICAL ENGINEERING SUPPORT)</p> <p>Articles:</p> <p>Description: 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 the following shipbuilding platforms: DDG-51, CVN-78 Class Carrier, VIRGINIA Class Submarine (VCS) / OHIO Replacement Program (ORP), 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).</p> <p>Funding for FY 2016 and beyond has been re-aligned to new PE 0603680N. At this R2A level, FY 2016 Funding of \$13.955M from Other (Shipbuilding, Repair Tech, Energetics, and technical engineering support) have been re-aligned to PE 0603680N Manufacturing Enterprise/Other.</p> <p>FY 2014 Accomplishments:</p> <p>- Continued Shipbuilding Affordability Thrust for CVN-78.</p> <p>- Continued Shipbuilding Affordability Thrust for VCS.</p> <p>- Continued Shipbuilding Affordability Thrust for LCS.</p> <p>- Continued Shipbuilding Affordability Thrust for DDG-51.</p>		10.400 -	10.100 -	- -	- -	- -

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015		
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0708011N / <i>Industrial Preparedness</i>		Project (Number/Name) 1050 / <i>Manufacturing Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<ul style="list-style-type: none"> - 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. - Continued Energetics Thrust for PEO IWS and Other Acquisition Programs. Includes continuation of energetics efforts to support PEO IWS and other acquisition programs. - Continued to provide technical engineering support for the ManTech Program. <p>FY 2015 Plans:</p> <ul style="list-style-type: none"> -Continue all FY 2014 efforts unless otherwise noted as complete. -Complete Shipbuilding Affordability Thrust for VCS. -Initiate Shipbuilding Affordability Thrust for VCS/ORP. <p>FY 2016 Base Plans:</p> <p>Funds have been re-aligned to new PE 0603680N Manufacturing Technology Program.</p> <p>At this R2A level, FY 2016 Funding of \$13.955M from Other (Shipbuilding, Repair Tech, Energetics, and technical engineering support) has been re-aligned to PE 0603680N Manufacturing Enterprise/Other.</p> <p>FY 2016 OCO Plans:</p> <p>N/A</p>						
Accomplishments/Planned Programs Subtotals		48.795	37.169	-	-	-
C. Other Program Funding Summary (\$ in Millions)						
N/A						
Remarks						
D. Acquisition Strategy						
Efforts are focused on affordability reduction for the following: DDG Family, CVN-78 Class Carrier, Littoral Combat Ship (LCS), the VIRGINIA Class Submarine (VCS) / OHIO Replacement Program (ORP), Joint Strike Fighter (JSF), and, starting in FY16, CH-53-K.						
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 or per aircraft for each of the five primary affordability platforms: DDG-51, CVN-78 Class Carrier, VIRGINIA Class Submarine/OHIO Replacement Program (VCS/ORP), Littoral Combat Ship (LCS), and Joint Strike Fighter (JSF), and, starting in FY16, CH-53-K.						

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 7						R-1 Program Element (Number/Name) PE 0708011N / <i>Industrial Preparedness</i>						Project (Number/Name) 1050 / <i>Manufacturing Tech</i>			
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Mfg Development (B2P)	C/CPFF	American Competitiveness Institute (ACI) : Philadelphia, PA (B2P)	6.300	-		-		-		-		-	-	6.300	-
Mfg Development (CMTIC)	C/CPAF	SCRA : Anderson, SC	33.591	6.080	Oct 2013	3.525	Oct 2014	-		-		-	-	43.196	-
Award Fee (CMTIC)	C/CPAF	SCRA : Anderson, SC	1.512	0.420	Oct 2013	0.225	Oct 2014	-		-		-	-	2.157	-
Mfg Development (CNST)1	C/CPFF	Advanced Technology Institute (ATI) : Charleston, SC	4.697	-		-		-		-		-	-	4.697	-
Mfg Development (CNST)2	C/CPAF	Advanced Technology Institute (ATI) : Charleston, SC	21.396	5.422	Oct 2013	6.322	Oct 2014	-		-		-	-	33.140	-
Award Fee (CNST)	C/CPAF	Advanced Technology Institute (ATI) : Charleston, SC	1.496	0.378	Oct 2013	0.378	Oct 2014	-		-		-	-	2.252	-
Mfg Development (EMPF)	C/CPAF	American Competitiveness Institute (ACI) : Philadelphia, PA	34.340	6.388	Oct 2013	5.264	Oct 2014	-		-		-	-	45.992	-
Award Fee (EMPF)	C/CPAF	American Competitiveness Institute (ACI) : Philadelphia, PA	2.224	0.408	Oct 2013	0.336	Oct 2014	-		-		-	-	2.968	-
Mfg Development (EMTC)	WR	Naval Surface Warfare Center - Indian Head : Indian Head, MD	9.705	2.000	Oct 2013	1.300	Oct 2014	-		-		-	-	13.005	-
Mfg Development (EOC)	C/CPAF	Penn State University : State College, PA (EOC)	16.596	4.230	Oct 2013	2.303	Oct 2014	-		-		-	-	23.129	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 7						R-1 Program Element (Number/Name) PE 0708011N / <i>Industrial Preparedness</i>						Project (Number/Name) 1050 / <i>Manufacturing Tech</i>			
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Award Fee (EOC)	C/CPAF	Penn State University : State College, PA (EOC)	0.802	0.270	Oct 2013	0.147	Oct 2014	-		-		-	-	1.219	-
Mfg Development (iMAST)	C/CPFF	Penn State University : State College, PA (iMAST)	18.304	3.575	Oct 2013	2.700	Oct 2014	-		-		-	-	24.579	-
Mfg Development (NJC)	C/CPAF	Edison Welding Institute : Columbus, OH	11.479	-		-		-		-		-	-	11.479	-
Award Fee (NJC)	C/CPAF	Edison Welding Institute : Columbus, OH	0.793	-		-		-		-		-	-	0.793	-
Mfg Development (NMC)	C/CPAF	Concurrent Technologies Corp. : Johnstown, PA	55.940	11.022	Oct 2013	7.663	Oct 2014	-		-		-	-	74.625	-
Award Fee (NMC)	C/CPAF	Concurrent Technologies Corp. : Johnstown, PA	3.034	0.776	Oct 2013	0.480	Oct 2014	-		-		-	-	4.290	-
Mfg Development	WR	Naval Air Systems Command (NAVAIR) : Patuxent River, MD	1.753	0.375	Oct 2013	0.090	Oct 2014	-		-		-	-	2.218	-
Mfg Development	WR	Naval Research Laboratory (NRL) : Washington, DC	0.900	0.380	Oct 2013	0.080	Oct 2014	-		-		-	-	1.360	-
Mfg Development	WR	Naval Surface Warfare Center - Carderock Division : Carderock, MD	7.092	1.424	Oct 2013	0.858	Oct 2014	-		-		-	-	9.374	-
Mfg Development	WR	Naval Undersea Warfare Center - Newport : Newport, RI	0.380	-		-		-		-		-	-	0.380	-
Mfg Development	WR	SPAWAR : San Diego, CA	0.010	-		-		-		-		-	-	0.010	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 7						R-1 Program Element (Number/Name) PE 0708011N / Industrial Preparedness				Project (Number/Name) 1050 / Manufacturing Tech					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Mfg Development	WR	Naval Surface Warfare Center Dahlgren : Dahlgren, VA	0.030	0.025	Oct 2013	0.025	Oct 2014	-		-		-	-	0.080	-
Mfg Development	WR	Puget Sound Naval Shipyard : Bremerton, WA	0.006	-		-		-		-		-	-	0.006	-
Subtotal			232.380	43.173		31.696		-		-		-	-	307.249	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Support (GTEC)	C/CPFF	DRC : Andover, MA	9.257	1.800	Oct 2013	1.700	Oct 2014	-		-		-	-	12.757	-
Contractor Support (GMST)	C/CPFF	DRC : Andover, MA	0.213	0.025	Oct 2013	0.025	Oct 2014	-		-		-	-	0.263	-
ManTech Registrations (GMPC)	Various	Various : Various	0.039	0.010	Oct 2013	0.005	Oct 2014	-		-		-	-	0.054	-
ManTech Travel (GMTT)	Various	Various : Various	0.400	0.060	Oct 2013	0.045	Oct 2014	-		-		-	-	0.505	-
Contractor Support (GMST)	C/CPFF	Various : Various	0.740	0.126	Oct 2013	0.015	Oct 2014	-		-		-	-	0.881	-
Miscellaneous (ONR Support Bills)	C/CPFF	Various : Various	5.792	1.429	Oct 2013	1.335	Oct 2014	-		-		-	-	8.556	-
Miscellaneous (Stat Reserve)	Various	Various : Various	7.937	2.172	Oct 2013	2.138	Oct 2014	-		-		-	-	12.247	-
Detailee staff	WR	Army Research Lab : Aberdeen, MD	0.150	-		0.150	Oct 2014	-		-		-	-	0.300	-
JDMTP Support	WR	Air Force Research Lab : Dayton, OH	0.060	-		0.060	Oct 2014	-		-		-	-	0.120	-
Subtotal			24.588	5.622		5.473		-		-		-	-	35.683	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy										Date: February 2015			
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0708011N / <i>Industrial Preparedness</i>				Project (Number/Name) 1050 / <i>Manufacturing Tech</i>				
	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	256.968	48.795		37.169		-		-		-	-	342.932	-
Remarks													

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)

PE 0708011N / Industrial Preparedness

Project (Number/Name)

1050 / Manufacturing Tech

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
Proj 1050																												
Composites Processing and Fabrication																												
-- Annual Investment Guidance (CP&F)																												
-- Project Identification (CP&F)																												
-- Project Evaluation (CP&F)																												
-- Prog Office Commitment (CP&F)																												
-- FY Plan Determined (CP&F)																												
-- Project Award (CP&F)																												
-- Ongoing Projects (CP&F)																												
Corporate Investments																												
-- Annual Investment Guidance (CI)																												
-- Project Identification (CI)																												
-- Project Evaluation (CI)																												
-- Prog Office Commitment (CI)																												
-- FY Plan Determined (CI)																												
-- Project Award (CI)																												
-- Ongoing Projects (CI)																												
Electronics Processing and Fabrication																												
-- Annual Investment Guidance (EP&F)																												
-- Project Identification (EP&F)																												
-- Project Evaluation (EP&F)																												
-- Prog Office Commitment (EP&F)																												
-- FY Plan Determined (EP&F)																												
-- Project Award (EP&F)																												
-- Ongoing Projects (EP&F)																												

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)

PE 0708011N / Industrial Preparedness

Project (Number/Name)

1050 / Manufacturing Tech

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
Metals Processing and Fabrication																												
-- Annual Investment Guidance (MP&F)																												
-- Project Identification (MP&F)																												
-- Project Evaluation (MP&F)																												
-- Prog Office Commitment (MP&F)																												
-- FY Plan Determined (MP&F)																												
-- Project Award (MP&F)																												
-- Ongoing Projects (MP&F)																												
Other																												
-- Annual Investment Guidance (Other)																												
-- Project Identification (Other)																												
-- Project Evaluation (Other)																												
-- Prog Office Commitment (Other)																												
-- FY Plan Determined (Other)																												
-- Project Award (Other)																												
-- Ongoing Projects (Other)																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)

PE 0708011N / Industrial Preparedness

Project (Number/Name)

1050 / Manufacturing Tech

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 1050				
Composites Processing and Fabrication	1	2014	4	2015
-- Annual Investment Guidance (CP&F)	1	2014	4	2015
-- Project Identification (CP&F)	1	2014	1	2015
-- Project Evaluation (CP&F)	1	2014	2	2015
-- Prog Office Commitment (CP&F)	1	2014	2	2015
-- FY Plan Determined (CP&F)	1	2014	3	2015
-- Project Award (CP&F)	1	2014	1	2015
-- Ongoing Projects (CP&F)	1	2014	4	2015
Corporate Investments	1	2014	4	2015
-- Annual Investment Guidance (CI)	1	2014	4	2015
-- Project Identification (CI)	1	2014	1	2015
-- Project Evaluation (CI)	1	2014	2	2015
-- Prog Office Commitment (CI)	1	2014	2	2015
-- FY Plan Determined (CI)	1	2014	3	2015
-- Project Award (CI)	1	2014	1	2015
-- Ongoing Projects (CI)	1	2014	4	2015
Electronics Processing and Fabrication	1	2014	4	2015
-- Annual Investment Guidance (EP&F)	1	2014	4	2015
-- Project Identification (EP&F)	1	2014	1	2015
-- Project Evaluation (EP&F)	1	2014	2	2015
-- Prog Office Commitment (EP&F)	1	2014	2	2015
-- FY Plan Determined (EP&F)	1	2014	3	2015

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy	Date: February 2015
---	----------------------------

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0708011N / <i>Industrial Preparedness</i>	Project (Number/Name) 1050 / <i>Manufacturing Tech</i>
--	--	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
-- Project Award (EP&F)	1	2014	1	2015
-- Ongoing Projects (EP&F)	1	2014	4	2015
Metals Processing and Fabrication	1	2014	4	2015
-- Annual Investment Guidance (MP&F)	1	2014	4	2015
-- Project Identification (MP&F)	1	2014	1	2015
-- Project Evaluation (MP&F)	1	2014	2	2015
-- Prog Office Commitment (MP&F)	1	2014	2	2015
-- FY Plan Determined (MP&F)	1	2014	3	2015
-- Project Award (MP&F)	1	2014	1	2015
-- Ongoing Projects (MP&F)	1	2014	4	2015
Other	1	2014	4	2015
-- Annual Investment Guidance (Other)	1	2014	4	2015
-- Project Identification (Other)	1	2014	1	2015
-- Project Evaluation (Other)	1	2014	2	2015
-- Prog Office Commitment (Other)	1	2014	2	2015
-- FY Plan Determined (Other)	1	2014	3	2015
-- Project Award (Other)	1	2014	1	2015
-- Ongoing Projects (Other)	1	2014	4	2015