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

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational

PE 0708011N I Industrial Preparedness

Systems Development

,												
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO [#]	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	209.057	64.411	50.933	37.169	-	37.169	54.987	55.741	56.749	57.850	Continuing	Continuing
1050: Manufacturing Tech	209.057	47.911	50.933	37.169	-	37.169	54.987	55.741	56.749	57.850	Continuing	Continuing
9999: Congressional Adds	0.000	16.500	-	-	-	-	-	-	-	_	-	16.500

[#] The FY 2015 OCO Request will be submitted at a later date.

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.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	54.879	50.933	51.269	-	51.269
Current President's Budget	64.411	50.933	37.169	-	37.169
Total Adjustments	9.532	-	-14.100	-	-14.100
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-0.256	-			
SBIR/STTR Transfer	-2.129	-			
 Program Adjustments 	-	-	-0.284	-	-0.284
 Rate/Misc Adjustments 	-0.001	-	-13.816	-	-13.816
 Congressional General Reductions 	-6.082	-	-	-	-
Adjustments					
Congressional Add Adjustments	18.000	-	-	-	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	
1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational	PE 0708011N I Industrial Preparedness	
Systems Development		

Congressional Add Details (\$ in Millions, and Includes General Reductions)	FY 2013	FY 2014
Project: 9999: Congressional Adds		
Congressional Add: Industrial Preparedness (Cong)	16.500	-
Congressional Add Subtotals for Project: 9999	16.500	-
Congressional Add Totals for all Projects	16.500	-

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

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Exhibit R-2A, RDT&E Project Ju	stification:	PB 2015 N	lavy							Date: Marc	ch 2014	
1				R-1 Program Element (Number/Name) PE 0708011N I Industrial Preparedness PE 0708011N I Industrial Preparedness								
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO [#]	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
1050: Manufacturing Tech	209.057	47.911	50.933	37.169	-	37.169	54.987	55.741	56.749	57.850	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

^{*} The FY 2015 OCO Request will be submitted at a later date.

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.

The budget levels for FY13, FY14 and particularly FY15 are lower than they have traditionally been due to DON decisions to re-baseline programs. For FY16 and beyond the budget returns to the prior profile.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: COMPOSITES PROCESSING AND FABRICATION	5.335	5.669	3.750
Articles:	-	-	-
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), and Littoral Combat Ship (LCS), and the Joint Strike Fighter (JSF).			
Reductions from FY 14 to FY 15 reflect DON decisions to re-baseline programs.			
FY 2013 Accomplishments: - 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. - Continued Composite Materials and Process Improvement Thrust for CVN-78 Shipbuilding Affordability Initiative. - Continued Composite Materials and Process Improvement Thrust for Air Platforms, including the Joint Strike Fighter (JSF). - Continued Composite Materials and Process Improvement Thrust for LCS Shipbuilding Affordability Initiative			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: M	arch 2014	
Appropriation/Budget Activity 1319 / 7	/Budget Activity R-1 Program Element (Number/Name) PE 0708011N / Industrial Preparedness 1050				
B. Accomplishments/Planned Programs (\$ in Millions, Article - Continue efforts of FY 2013.	Quantities in Each)		FY 2013	FY 2014	FY 2015
FY 2015 Plans: Complete Composite Materials and Process Improvement Thrust of efforts to develop / optimize composite materials fabrication ted Continue all FY 2014 efforts unless otherwise noted as complete. Initiate - Composite Materials and Process Improvement Thrust for	chnology for reduced cost VCS construction.	nuation			
Title: CORPORATE INVESTMENTS	A	rticles:	5.997 -	8.764 -	4.319 -
Description: The Corporate Investments activity is focused on actimplementation of world-class industrial practices as well as advanced system development, production, and sustainment. Key emphasis implementation of world-class industrial practices throughout the obusiness practices and information technologies capable of strear 3) Leveraging information technologies in pursuit of tighter couplir Investment efforts create improvements to cost and cycle time for Additionally, Corporate Investments include the funding of recently following affordability platforms: DDG-51, CVN-78 Class Carrier, as well as the Joint Strike Fighter (JSF).	nced design and information systems that support weapor a areas include: 1) Benchmarking and accelerating the contractor base; 2) Demonstrating and validating advance mlining management functions in all industrial base tiers; a ng of all defense industrial enterprise elements. Corporate weapon system development, production, and repair. y identified near-term high priority affordability efforts for the	d .nd			
Funding increase from FY13 to FY14 supports additional investme above the shop floor and production planning activities.	ents in the advanced manufacturing enterprise area focuse	ed on			
Reductions from FY 14 to FY 15 reflect DON decisions to re-base	eline programs.				
FY 2013 Accomplishments: - Continued Near-Term High Priority Shipbuilding Affordability Thr - Continued Near-Term High Priority Shipbuilding Affordability Thr - Continued efforts to improve the Navy industrial base through ab processes/technology improvements for Navy weapon system accand others. - Continued Near-Term, High Priority Shipbuilding Affordability Thr - Continued Near-Term High Priority Shipbuilding Affordability Thr	rust for LCS. Dove-the-factory-floor enhancements and supply chain quisition programs such as the DDG-51, CVN-78, LCS, Volumet for DDG-51.	CS,			

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: M	larch 2014	
				lame) ng Tech	
B. Accomplishments/Planned Programs (\$ in Millions, Article Qua	ntities in Each)		FY 2013	FY 2014	FY 2015
Initiate Near-Term High Priority Affordability Thrust for JSF.					
FY 2014 Plans: - Continue efforts of FY 2013.					
FY 2015 Plans: Complete Near-Term High Priority Shipbuilding Affordability Thrust for Continue all FY 2014 efforts unless otherwise noted as complete. Initiate Near-Term High Priority Shipbuilding Affordability Thrust for VC					
Title: ELECTRONICS PROCESSING AND FABRICATION			9.526	10.000	8.050
	Α	rticles:	-	-	-
capabilities for electronics critical to defense applications over their full processes on the shop floor, as well as repair and maintain facilities su on process maturation. Emphasis is on affordability for the following sh VIRGINIA Class Submarine (VCS) / OHIO Replacement Program (OR geared towards toward electronics / electro-optics improvements for hig (JSF).	ich as depots and logistics centers, with a strong emplipbuilding platforms: DDG-51, CVN-78 Class Carrier P), and Littoral Combat Ship (LCS), with some fundir	ohasis , ig			
Reductions from FY 14 to FY 15 reflect DON decisions to re-baseline p	programs.				
FY 2013 Accomplishments: - Continued Electronics/Electro-Optics Thrust for VCS Affordability Initi electronics/electro-optics efforts. - Continued Electronics/Electro-Optics Thrust for LCS Shipbuilding Afformation Continued Electronics/Electro-Optics Thrust for Air Platforms, including electronics/electro-optics efforts to improve affordability for Air Platform - Continued Electronics/Electro-Optics Thrust for DDG-51 Shipbuilding efforts to impact DDG-51 affordability. - Continued Electronics/Electro-Optic Thrust for CVN-78 Shipbuilding Aelectro-optics efforts to improve affordability for CVN-78 Class Carrier.	ordability Initiative. Ing the Joint Strike Fighter (JSF). Includes continuations. Affordability Initiative. Includes radar/communication Affordability Initiative. Includes continuation of electro	s			
FY 2014 Plans: - Continue efforts of FY 2013.					
FY 2015 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: M	arch 2014	
Appropriation/Budget Activity 1319 / 7	ct (Number/N Manufacturir				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quar	ntities in Each)		FY 2013	FY 2014	FY 2015
Complete Electronics/Electro-Optics Thrust for VCS Affordability Initiative lectronics/electro-optics efforts. Continue all FY 2014 efforts unless otherwise noted as complete. Initiate Electronics/Electro-Optics Thrust for VCS/ORP Affordability Initial affordability for VCS/ORP.	·	nprove			
Title: METALS PROCESSING AND FABRICATION		rticles:	17.146	16.100	10.950
Description: The objective of the Metals Processing and Fabrication as processes and capabilities for metals and special materials critical to de that support this objective include: processing methods, special material efforts directly impact the cost and performance of future aircraft, rotorc naval platforms, space systems, artillery and ammunition, and defense affordability for the following shipbuilding platforms: DDG-51, CVN-78 COHIO Replacement Program (ORP), and Littoral Combat Ship (LCS), we fabrication improvements for high priority air platforms such as the Joint Funding decrease from FY13 to FY14 reflects ramp up of the JSF projectechnology. Reductions from FY 14 to FY 15 reflect DON decisions to re-baseline p	ctivity is to develop affordable, robust manufacturing efense weapon system applications. Major areas als, joining, and inspection and compliance. These raft, land combat vehicles, surface and subsurface industry manufacturing equipment. Emphasis is on class Carrier, VIRGINIA Class Submarine (VCS) / with some funding geared toward metals processing at Strike Fighter (JSF).	and			
FY 2013 Accomplishments: - Continued schedule Compression/Production Engineering Thrust for Note Continued outfitting Thrust for VCS Shipbuilding Affordability Initiative. - Continued rapid response efforts. - Continued Metals Materials and Process Improvement Thrust for DDG and process efforts for DDG-51 include material characterization for option optimization (welding, bonding, machining, etc.) resulting in reduced continued Metals Materials and Process Improvement Thrust for CVN and process efforts for CVN 78 include material characterization for option optimization (welding, bonding, machining, etc.) resulting in reduced continued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Ship (LCS) Shipbuilding Accontinued Metals Thrust for Littoral Combat Shippuilding Accontinued Metals Thrust for Littoral Combat Shippuilding Accontinued Metals Thrust for Lit	/CS Shipbuilding Affordability Initiative. 6-51 Shipbuilding Affordability Initiative. Metallic mate timum processing and fabrication as well as process st of fabrication for DDG-51 components. 1-78 Shipbuilding Affordability Initiative. Metallic mate imum processing and fabrication as well as process st of fabrication for CVN 78 components.				

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: M	arch 2014				
				roject (Number/Name) 050 / Manufacturing Tech				
B. Accomplishments/Planned Programs (\$ in Millions, Artic	le Quantities in Each)		FY 2013	FY 2014	FY 2015			
 Continued Metals Materials and Process Improvement Thrust process efforts for VCS include material characterization for opti (welding, bonding, machining, coating/cladding, etc.) resulting in Continued Metal Materials and Process Improvements Thrust Continued Metals Materials and Process Improvement Thrust Continued Metal Materials and Process Improvements Thrust 	imum processing and fabrication as well as process optimiza n reduced cost of fabrication for VCS components. for Other Ship/NAVSEA Platforms. for Air Platforms.							
FY 2014 Plans: - Continue efforts of FY 2013.								
FY 2015 Plans: Complete Metals Materials and Process Improvement Thrust for Continue all FY 2014 efforts unless otherwise noted as complete VCS/ORP initiative.		st for						
Title: OTHER (SHIPBUILDING, REPAIR TECH, ENERGETICS	·	rticles:	9.907	10.400	10.10 -			
Description: The "Other" activity includes shipbuilding technolo support. Shipbuilding technology primarily addresses the develor and is geared towards affordability efforts for the following shipbulling Class Submarine (VCS) / OHIO Replacement Program (ORP), a repair, overhaul, and sustainment functions that emphasize remefforts concentrate on developing energetics solutions to ensure largely in support of Program Executive Office (PEO) Integrated	opment of manufacturing process improvements for shipyard puilding platforms: DDG-51, CVN-78 Class Carrier, VIRGINIA and Littoral Combat Ship (LCS). Repair technology addresse anufacturing processes and advancing technology. Energet the availability of safe, affordable, and quality energetics processes.	s \ es ics						
FY 2013 Accomplishments: - Continued Shipbuilding Affordability Thrust for CVN-78. - Continued Shipbuilding Affordability Thrust for VCS. - Continued Shipbuilding Affordability Thrust for LCS. - Continued Shipbuilding Affordability Thrust for DDG-51. - Continued Shipbuilding Thrust for Other Ship/NAVSEA Platforder. - Continued Repair Technology Thrust for repair and sustainment Technology projects based on high priority depot needs. - Continued Energetics Thrust for PEO IWS and Other Acquisition PEO IWS and other acquisition programs.	nt of Navy weapons systems. Includes continuation of Repa							

PE 0708011N: Industrial Preparedness

Navy

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
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) - Continued to provide technical engineering support for the ManTech Program.	FY 2013	FY 2014	FY 2015
FY 2014 Plans: - Continue efforts of FY 2013.			
FY 2015 Plans: Complete Shipbuilding Affordability Thrust for VCS. Continue all FY 2014 efforts unless otherwise noted as complete. Initiate Shipbuilding Affordability Thrust for VCS/ORP.			
Accomplishments/Planned Programs Subtotals	47.911	50.933	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), and the Joint Strike Fighter (JSF).

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).

PE 0708011N: Industrial Preparedness Navy

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Exhibit R-4, RDT&E Schedule Pro	offie: PB 2015 Navy			Project (Number/Name)						
Appropriation/Budget Activity 1319 / 7			R-1 Program Element (Number/Name) PE 0708011N / Industrial Preparedness							
Proj 1050	FY 2013 FY 2014	FY 2015 FY 2016	FY 2017	FY 2018 FY 2019						
	10 20 30 40 10 20 30 40	1 1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1 Composites Processing and Fa	Q 2Q 3Q 40 abrication	Q 1Q 2Q 3Q 4Q 1Q 2Q 3Q 4						
	- 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 Investment	s							
	- 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 Fa								
		- 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)									
	Metals Processing and Fabrication									
		 Annual Investment Guidance 	e (MP&F)							

Exhibit R-4, RDT&E Schedule Pro	ofile: PB 2015 Navy Date: March 2014
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0708011N / Industrial Preparedness Project (Number/Name) 1050 / Manufacturing Tech
	- 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)
2015DON - 0708011N - 1050	

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy									Date: Mare	ch 2014		
Appropriation/Budget Activity 1319 / 7			,			Project (Number/Name) 9999 / Congressional Adds						
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
9999: Congressional Adds	-	16.500	-	-	-	-	-	-	-	-	-	16.500
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

^{*} The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

Congressional interest items not included in other projects.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2013	FY 2014
Congressional Add: Industrial Preparedness (Cong)	16.500	-
FY 2013 Accomplishments: The purpose of the funding is to accelerate Navy ManTech shipbuilding affordability initiatives and is to be allocated proportionally to the following major shipbuilding categories: aircraft carriers, large surface combatants, small surface combatants, attack submarines and amphibious warfare ships. Progress executing this funding includes soliciting affordability project ideas from the shipbuilding industry producing these platforms via the Navy ManTech COEs, prioritizing project candidates based on overall proposal strength and combined ranking by the acquisition program office and industry. A project portfolio has been developed for each platform totaling approximately the \$3.3M allocated and is ready for final approval and execution.		
FY 2014 Plans: N/A		
Congressional Adds Subtotals	16.500	-

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

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Congressional add

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