Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	513.222	39.250	31.549	38.327	-	38.327	39.218	31.479	31.494	32.066	Continuing	Continuing
0798: *Allied/Coalition Interoperability and Information Dominance (ACIID)*	29.007	0.772	0.772	0.779	-	0.779	0.781	0.782	0.799	0.814	Continuing	Continuing
2144: *Space & Elec Warfare Engineering*	163.146	9.013	9.085	8.053	-	8.053	8.136	7.932	8.077	8.224	Continuing	Continuing
2356: *Maritime Concept Generation & Development*	0.000	0.000	8.323	17.194	-	17.194	17.750	8.458	8.738	8.888	Continuing	Continuing
2357: *Maritime Battle Center*	320.369	8.618	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	328.987
3319: *Fleet Experimentation*	0.700	20.847	13.369	12.301	-	12.301	12.551	14.307	13.880	14.140	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This Program Element (PE) contains four projects: Maritime Battle Center (MBC), Fleet Experimentation (beginning in FY 2012 with funding moving from MBC), Allied/Coalition Interoperability and Information Dominance (ACIID), and Space and Electronic Warfare (SEW) Engineering. The MBC project (2357) focuses on fleet experimentation in order to eliminate war fighting gaps and validate Navy Concept of Operations (CONOPS) and doctrine. The MBC also manages the Sea Trial program of fleet experimentation that is administered by the Sea Trial Executive Steering Group (STESG). Both MBC and Sea Trial integrate emergent concepts and technologies through experiments, analysis, modeling and simulation to support war fighting capability development. Sea Trial experimentation is dedicated to providing solutions to near term (within the Fiscal Year Defense Plan) war fighting gaps through focused operational agent (Commander Second Fleet, Commander Third Fleet and Commander Naval Network Warfare Command) led experimentation. The flag level Sea Trial Executive Steering Group prioritizes proposed Sea Trial experiments annually. The MBC will also serve as the Navy representative to the Joint Battle Center and the battle labs of other services.

The ACIID and SEW Engineering projects (0798 and 2144 respectively) are systems engineering non-acquisition programs to develop, test, implement technical authority, and validate naval Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) architectures to support naval missions in the Joint and Coalition Theater. The mission of these projects are carried out by multiple tasks that are used to ensure naval C4ISR Command and Control Warfare (C2W) components of SEW are effectively integrated into service-oriented architecture delivering net-centric warfare capability. Additionally, these projects ensure that (1) the composite operational capabilities of SEW systems (not the individual component systems) conform to the naval C4ISR architecture and enhance war fighting capability as related to the objectives of National Defense Strategy, evolving joint visions and direction, such as net centric capability, and are guided by warfighter requirements; (2) that SEW systems and systems integration efforts involve leading-edge technology transfer of information processing technologies primarily through integration of government and commercial off-the-shelf (GOTS/COTS) products to enhance the Navy's operational capability, interoperability,

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604707N: *SEW Architecture/Eng Support*

warfighter effectiveness, flexible reconfiguration, as well as reduce costs; and (3) that SEW systems integration efforts promote the delivery of Information Dominance and the Navy's contribution to the Global Information Grid (GIG).

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	33.573	31.549	31.665	-	31.665
Current President's Budget	39.250	31.549	38.327	-	38.327
Total Adjustments	5.677	0.000	6.662	-	6.662
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	6.541	0.000			
• SBIR/STTR Transfer	-0.864	0.000			
• Program Adjustments	0.000	0.000	-0.500	-	-0.500
• Rate/Misc Adjustments	0.000	0.000	7.162	-	7.162

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 0798: *Allied/Coalition Interoperability and Information Dominance (ACIID)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0798: *Allied/Coalition Interoperability and Information Dominance (ACIID)*	29.007	0.772	0.772	0.779	-	0.779	0.781	0.782	0.799	0.814	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Allied/Coalition Interoperability and Information Dominance (ACIID) program advances network centric warfare and Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) interoperability with Australia, Canada, New Zealand, United Kingdom, United States (AUSCANNZUKUS), North Atlantic Treaty Organization (NATO) and other Allied and Coalition partners. The program determines maritime operational gaps with our allies, identifies Doctrine, Organization, Training, Material, Leadership, Personnel and Facilities (DOTMLPF) solutions with the potential to fill those gaps, and assesses these solutions and associated concepts of operation in laboratory and at-sea environments. The ACIID program includes integration and testing in support of joint and Allied war fighting capabilities, including interoperability testing of C4ISR equipments. Allied and joint interoperability is critical for future maritime operations, especially as the United States Navy expands Internet Protocol (IP) networking throughout the fleet via Consolidated Afloat Networks and Enterprise Services (CANES), Next Generation Networks (NGEN), Multi-National Information Sharing (MNIS) and with the Global Information Grid (GiG). Currently, IP connectivity with AUSCANNZUKUS and other Allied/Coalition forces is limited, requiring extensive backhaul through ashore infrastructure. Higher bandwidth solutions suitable for use over tactical networks require development and assessment for emerging coalition and joint interoperability requirements, such as Anti-Access Area Denial (A2AD), Network Operations Without Shore (NOWS) and Maritime Domain Awareness (MDA). Increases in data throughput are required for the effective exchange of rich Information Dominance (ID) data sets and services via Service Oriented Architectures within the limitations of High Frequency, Ultra-High Frequency and other portions of the radio frequency spectrum, coupled with appropriate Information Assurance and Computer Network Defense (IA/CND) mechanisms. Development and assessment of potential solutions will integrate improved IP capabilities with the Advanced Digital Network Systems and existing international standards (e.g. Allied Communications Publication 200, NATO Standardization Agreements 5066 and 4691). The continued development and refinement of advanced tactical networking technologies and protocols, as well as automatic link establishment standards, will provide for a significant improvement in data sharing within, and between, coalition maritime elements.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Advanced Relay Capabilities	0.772	0.772	0.779
Articles:	0	0	0
FY 2012 Accomplishments: -Developed and refined advanced relay capabilities that promote interoperability with AUSCANNZUKUS, NATO and other Allied/ Coalition forces and supported Anti-Access Area Denial (A2AD) and NOWS.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 0798: *Allied/Coalition Interoperability and Information Dominance (ACIID)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
-Solutions addressed higher bandwidth technologies, such as wide-band High Frequency (HF), wide-band Ultra-High Frequency (UHF) and broadband directional communications/networking, advanced relay technologies, coalition routing architectures (with an emphasis on cipher-text or "black core" routing), application and service architectures supporting A2AD/NOWS, and IA/CND solutions. Maximized interoperability and network efficiency using multiple, dissimilar bearers and integrated these advanced solutions with High Assurance Internet Protocol Encryptor (HAIPE) devices and Service Oriented Architecture (SOA) in an Anti-Access Area Denial (A2AD)/Network Operations Without Shore (NOWS) coalition networking environment. -Progressed the standardization of Maritime Relayed Line of Sight Network and High Frequency Improvement Program (HFIP) into North Atlantic Treaty Organization (NATO) Standardization Agreements (STANAGs) 4691 and 5066 respectively. -Venues of opportunity, such as Trident Warrior, were exploited to assess and validate the individual technologies, integrated solutions and associated Doctrine, Organization, Training, Material, Leadership, Personnel and Facilities (DOTMLPF) through experimentation, trials and demonstrations with Australia, Canada, New Zealand, United Kingdom, United States (AUSCANNZUKUS) and other Allied/Coalition partners.			
FY 2013 Plans: -Continue the development and refinement of advanced relay and communication capabilities that promote interoperability with AUSCANNZUKUS, NATO and other Allied/Coalition forces and support Anti-Access Area Denial (A2AD) and Network Operations Without Shore (NOWS). Solutions will address higher bandwidth technologies, such as wide-band High Frequency (HF), High Data Rate Ultra-High Frequency (UHF) and 3G/4G wireless. -Secure coalition routing architectures incorporating High Assurance Internet Protocol Encryptor (HAIPE) devices that support tactical networking and A2AD will be developed along with distributed Service Oriented Architecture (SOA) applications and services architectures and advanced Information Assurance and Computer Network Defense (IA/CND) solutions. The overall goal is to maximize interoperability and network efficiency using multiple, dissimilar bearers and integrate these advanced solutions into an A2AD/NOWS Allied/Coalition tactical networking environment that would also include tactical data links, such as Link-22. -Continue to progress the NATO standardization of Maritime Relayed Line of Sight Network Standardization Agreements (STANAG 4691) and High Frequency Internet Protocol (STANAG 5066 Edition 3). -Venues of opportunity, such as Trident Warrior (now known as Fleet Experimentation (FLEX)), will be exploited to assess and validate the individual technologies, integrated solutions, and associated DOTMLPF through experimentation, trials and demonstrations with AUSCANNZUKUS and other Allied/Coalition partners.			
FY 2014 Plans: -Continue the development and refinement of advanced networking and communication capabilities that promote Allied interoperability and support A2AD and NOWS. Solutions will address higher bandwidth technologies, such as wide-band HF, High Data Rate UHF and 3G/4G wireless. -Secure routing architectures incorporating HAIPE devices that support tactical networking and A2AD will be developed along with distributed SOA applications and services architectures and advanced IA/CND solutions. The overarching goal is to maximize			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 0798: *Allied/Coalition Interoperability and Information Dominance (ACIID)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
interoperability and network efficiency using multiple, dissimilar bearers and integrate these advanced solutions into an A2AD/ NOWS Allied/Coalition tactical networking environment that would also include tactical data links, such as Link-22. -Assess Information Warfare interoperability gaps with AUSCANNZUKUS nations, to include Intelligence, Surveillance and Reconnaissance (ISR), Electronic Warfare (EW) and Cyber, in appropriate venues. -Continue to progress North Atlantic Treaty Organization (NATO) standardization of Maritime Relayed Line of Sight Network Standardization Agreements (STANAG 4691) and High Frequency Internet Protocol (STANAG 5066 Edition 3). -Progress Allied Information Warfare (IW) interoperability with other joint and maritime multi-national forums, such as the Combined Communications Electronics Board (CCEB), Multinational Maritime Internet Protocol (IP) Interoperability Steering Group (M2I2) and the Multinational Information Sharing program (MNIS). -Venues of opportunity, such as Fleet Experimentation (FLEX), will be exploited to assess and validate the individual technologies, integrated solutions, and associated Doctrine, Organization, Training, Material, Leadership, Personnel and Facilities (DOTMLPF) through experimentation, trials and demonstrations with Australia, Canada, New Zealand, United Kingdom, United States (AUSCANNZUKUS) and other Allied/Coalition partners.			
Accomplishments/Planned Programs Subtotals	0.772	0.772	0.779

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Allied/Coalition Interoperability and Information Dominance (ACIID) is a non-acquisition program that promotes United States Navy interoperability with allied and coalition forces to achieve the Chief of Naval Operations vision by facilitating maritime interoperability in both processes and communications systems, including emerging capabilities, to counter growing high-end asymmetric threats, and is a key enabler of the force multiplying benefits achieved through cooperation among the AUSCANNZUKUS, NATO and other partner nations. Activities include acquiring intellectual capital in emerging technical areas through contracts providing technical engineering expertise and surge capacity for emerging tasks.

E. Performance Metrics

Advanced Relay Capabilities: The ACIID program will employ laboratory testing and at-sea demonstrations to assess specific technologies, operational concepts, and integrated Doctrine, Organization, Training, Material, Leadership, Personnel and Facilities (DOTMLPF) solutions pertaining to Anti-Access Area Denial, Service Oriented Architectures, Maritime Domain Awareness and other aspects of Information Dominance. These assessments will report on identified capability gaps, link capability gaps to technology/DOTMLPF gaps, identify technologies and DOTMLPF solutions considered ready for deployment, transition to a program of record to enhance Fleet war fighting capability and enhance Allied interoperability.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 0798: *Allied/Coalition Interoperability and Information Dominance (ACIID)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Advanced Relay Capabilities	Various	Various:Various	12.129	0.000		0.000		0.189	Jan 2014	-		0.189	0.000	12.318	
Advanced Relay Capabilities	WR	SSC PAC:San Diego	0.853	0.772	Jan 2012	0.772	Jan 2013	0.590	Jan 2014	-		0.590	Continuing	Continuing	Continuing
Interoperability Requirements	Various	Various:Various	3.266	0.000		0.000		0.000		-		0.000	0.000	3.266	
T & E Tools Development	Various	Various:Various	0.429	0.000		0.000		0.000		-		0.000	0.000	0.429	
Systems Int. & Interop. Testing (LBTN)	Various	Various:Various	3.862	0.000		0.000		0.000		-		0.000	0.000	3.862	
Interoperability Validation	Various	Various:Various	2.748	0.000		0.000		0.000		-		0.000	0.000	2.748	
Joint Interoperability	Various	Various:Various	1.174	0.000		0.000		0.000		-		0.000	0.000	1.174	
Testing OTH-T Systems	Various	Various:Various	3.069	0.000		0.000		0.000		-		0.000	0.000	3.069	
		Subtotal	27.530	0.772		0.772		0.779		0.000		0.779			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Various:Various	1.468	0.000		0.000		0.000		-		0.000	0.000	1.468	
ACQ Workforce Fund	Various	Various:Various	0.009	0.000		0.000		0.000		-		0.000	0.000	0.009	
		Subtotal	1.477	0.000		0.000		0.000		0.000		0.000	0.000	1.477	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	29.007	0.772		0.772		0.779		0.000		0.779			

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2144: *Space & Elec Warfare Engineering*	163.146	9.013	9.085	8.053	-	8.053	8.136	7.932	8.077	8.224	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

As of FY 2014, the Coalition Warrior Interoperability Demonstration (CWID) effort is referred to as Coalition Warrior Interoperability eXploration, eXperimentation, eXamination, eXercise (CWIX).

A. Mission Description and Budget Item Justification

OPNAVINST 3050.23 defines the policy to fuse validated and approved Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) architectures and interoperability requirements with joint requirements, milestones and program decisions. C4ISR integrated architectures are the underpinnings for all C4ISR mission areas and capabilities and, as such, requirements and acquisition processes have been reengineered to use these Integrated Architectures for decisional purposes and strategic planning.

Furthermore, Office of the Secretary of Defense (OSD) has defined key programs/efforts Global Information Grid Baseline Extension, Joint Tactical Radio System, Network Centric Enterprise Services, Information Assurance and standards that will drive and change the Navy's C4ISR integrated architectures and associated business processes for requirements, budgets and acquisition. To that end, the Space and Electronic Warfare provides three main functions: 1) Perform System of Systems and platform technical evaluations to establish the alignment with the N2/N6 Information Dominance vision for the Navy on the whole and identify performance and operational risks associated with the integration of multiple systems to provide a robust, mission based capability. 2) Develop C4ISR/Information Technology (IT)/ Information Dominance (ID) integrated architecture products and 3) Support C4ISR/IT/ID systems engineering processes and standards. The integrated architecture products are used to support the Navy's budget process by providing the critical core architecture and enabling capabilities to the war fighter. The systems engineering processes and standards provide the construct for distributed Command and Control (C2) interoperability requirements analyses to identify capability shortfalls/gaps and for systems engineering to compare/test alternatives in a joint end-to end environment while identifying associated Navy-wide C4ISR/IT/ID implications. Processes include developing and applying criteria for use in Systems Engineering Technical Reviews and providing technical input to governance bodies. This includes Human Systems Integration (HSI) to provide a mission-centered orientation to ensure effective operational employment of fielded capability. As joint concepts and OSD driving efforts/programs are matured/defined the Navy's C4ISR integrated architectures are refined and the supporting C4ISR systems engineer processes and standards work to engineer and enact C4ISR implementations Navy-wide across all C4ISR mission areas.

Products provided:

1) C4ISR/IT/ID integrated architectures

- Integrated Architectures and Standards - Architecture Views (Operational Views, Service Views, Technical Views, System Views)

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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- Migration roadmaps to the target architectures
- Architecture technical authority, studies, interpretation assistance, and white papers

2) Supporting C4ISR/IT/ID systems engineering processes

- Distributed C2 Interoperability Requirement Analysis - Gaps Analysis, Overlap Analysis, System Priority Lists, C4ISR Metrics and Models, Analysis of Alternatives, Requirements Database, Assessment Repository, Resource Implications Studies, Baseline Performance Models, Mission Task Analysis, HSI assessments.
- End-to-End Systems Engineering and Integrated Design - Operational feasibility studies, technical feasibility studies, technical roadmap engineering validations, Architectures and Assessment traceability matrices.
- Joint and Coalition interoperability trials - Joint End-to-End prototyping trials, and joint/coalition interoperability demonstrations, interoperability assessments and metrics, and interoperability studies via the Coalition Warrior Interoperability eXploration, eXperimentation, eXamination, eXercise (CWIX) formerly Coalition Warrior Interoperability Demonstration (CWID). United States Navy (USN) provides funding to the general CWID operating budget and participates by operating a USN demonstration site.
- Joint cloud enabled, two security domain environment using thin client devices that allow secure and cost effective operations at the point of need. Cloud Computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, apps and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.
- Integration and Interoperability (I&I)- Support Assistant Secretary of the Navy for Research, Development, and Acquisition ASN(RDA) initiatives in development of I&I. Assist in completion of Systems Engineering Technical Reviews and provide recommendations for updates to Acquisition policies and guidance.
- Information Technology Procurement Request (ITPR)- Review of Navy ITPRs for developing systems to ensure adherence to Navy Information Technology (IT) Standards.

3) Compliance and alignment reports with Navy Enterprise Architecture/Data Strategy and ASN(RDA) system engineering policies generated during Systems Engineering Technical Reviews (SETRs).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: C4ISR Systems Engineering	3.231	3.351	3.242
Articles:	0	0	0
FY 2012 Accomplishments: -Continued Navy Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) and Information Dominance Transformation/Strategic Planning within Navy/Joint/Department of Defense Framework: Assessed existing and emerging capabilities; developed and evaluated Navy-wide policies, plans, requirements, and compliance; developed integration and investment strategies; and accelerated innovation, testing, assessment and fielding of material and non-material solutions for enhanced operational capability, joint/allied/coalition interoperability and application/enforcement of enterprise requirements/architectures/standards toward greater Net-Centric Operations/Warfare and Information Dominance capability. -Established, developed, and validated interoperability requirements: Continued to perform SETRs utilizing validated assessment tools, system engineering methodologies and SETR checklists tracing system design to standards and			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
requirements (e.g., Information Assurance, data strategy, architecture, modeling, Open Architecture, Configuration Management, Service Oriented Architecture development, Anti-tamper, etc.) ensuring interoperability compliance to statutory and regulatory directives and guidance. -Ensured continuous improvement of SETR Checklists by incorporating the latest policy, guidance, standards, and specifications. -Performed System of Systems and platform technical evaluations to establish the alignment with the N2/N6 Information Dominance vision and identified performance and operational risks associated with the integration of multiple systems to provide a robust, mission based capability. -Continued to conduct document reviews (of Systems Engineering Plans, Information Support Plans, Interoperability Control Document/Competitive Design Development/Consolidated Programming Document, Information Assurance Strategies, Acquisition Strategies, etc.)for Office of the Chief of Naval Operations, Assistant Secretary of the Navy for Research, Development and Acquisition, and the Program Executive Offices, and other services to ensure sound systems engineering analysis and design principles have been applied to system planning requirements, design, testing, and supportability. -Continued to perform engineering evaluation and provided buy/no-buy decisions for proposed Deviations from specification for afloat platforms to determine performance and operational impacts of the proposed change and their effects on the platforms mission. -Continued to provide engineering evaluation and validation of Business Information Technology (IT) applications and IT infrastructure in order to combine, consolidate, and eliminate unnecessary or underutilized business systems for the Naval Enterprise. -Provided engineering evaluation and validation of programs and ensured adherence to technical standards in the following technical domains: communications, networks, Information Storage and Retrieval/Information Surveillance Reconnaissance/ Information Operations, afloat platforms (both large and small decks), submarines, shore and Maintenance Operations Center capability, command and control, and space systems. -Continued to conduct Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Certifications through design and testing analysis ensuring C4ISR delivery to the platform (shore, surface ship, submarine) was validated to meet the operational need and was interoperable with platform, force level, joint/allied/coalition forces.			
FY 2013 Plans: -Continue Navy C4ISR and Information Dominance Transformation/Strategic Planning within Navy/Joint/Department of Defense Framework: Assess existing and emerging capabilities; develop and evaluate Navy-wide policies, plans, requirements, and compliance; develop integration and investment strategies; and accelerate innovation, testing, assessment and fielding of material and non-material solutions for enhanced operational capability, joint/allied/coalition interoperability and application/enforcement of enterprise requirements/architectures/standards toward greater Net-Centric Operations/Warfare and Information Dominance capability.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
-Continue to establish, develop, and validate interoperability requirements: Perform Systems Engineering Technical Reviews (SETRs) utilizing validated assessment tools, system engineering methodologies and SETR checklists tracing system design to standards and requirements (e.g., Information Assurance (IA), data strategy, architecture, modeling, Open Architecture, Configuration Management, Service Oriented Architectures development, Anti-tamper, etc.) ensuring interoperability compliance to statutory and regulatory directives and guidance. Ensure continuous improvement of SETR Checklists by incorporating the latest policy, guidance, standards, and specifications. -Perform System of Systems and platform technical evaluations to integrate the alignment with the N2/N6 Information Dominance vision and identify performance and operational risks associated with the integration of multiple systems to provide a robust, mission based capability. -Continue to conduct document reviews (of Systems Engineering Plans, Information Support Plans, Interoperability Control Document/Competitive Design Development/Consolidated Programming Document, IA Strategies, Acquisition Strategies, etc.) for Office of the Chief of Naval Operations, Assistant Secretary of the Navy for Research, Development and Acquisition, and the Program Executive Offices, and other services to ensure sound systems engineering analysis and design principles have been applied to system planning requirements, design, testing, and supportability. -Continue to perform engineering evaluation and provide buy/no-buy decisions for proposed Deviations from Specification for afloat platforms to determine performance and operational impacts of the proposed change and their effects on the platforms mission. -Continue to provide engineering evaluation and validation of Business Information Technology (IT) applications and IT infrastructure in order to combine, consolidate, and eliminate unnecessary or underutilized business systems for the Naval enterprise. -Continue to provide engineering evaluation and validation of programs and ensure adherence to technical standards in the following technical domains: communications, networks, Information Storage and Retrieval/Information Surveillance Reconnaissance/Information Operations, afloat platforms (both large and small decks), submarines, shore and Maintenance Operations Center capability, command and control, and space systems. -Continue to conduct Command, Control, Communications, Computers, Intelligence (C4I) Certifications through design and testing analysis ensuring C4I delivery to the platform (shore, surface ship, submarine) is validated to meet the operational need and is interoperable with platform, force level, joint/allied/coalition forces.			
FY 2014 Plans: -Continue Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) and Information Dominance Transformation/Strategic Planning within Navy/Joint/Department of Defense Framework: Assess existing and emerging capabilities; develop and evaluate Navy-wide policies, plans, requirements, and compliance; develop integration and investment strategies; and accelerate innovation, testing, assessment and fielding of material and non-material solutions			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
for enhanced operational capability, joint/allied/coalition interoperability and application/enforcement of enterprise requirements/ architectures/standards toward greater Net-Centric Operations/Warfare and Information Dominance capability. -Continue to establish, develop, and validate interoperability requirements: Continue to perform Systems Engineering Technical Reviews (SETRs) utilizing validated assessment tools, system engineering methodologies and SETR checklists tracing system design to standards and requirements (e.g., Information Assurance, data strategy, architecture, modeling, Open Architecture, Configuration Management, Service Oriented Architecture development, Anti-tamper, etc.) ensuring interoperability compliance to statutory and regulatory directives and guidance. -Continue to ensure continuous improvement of SETR Checklists by incorporating the latest policy, guidance, standards, and specifications. -Continue to perform System of Systems and platform technical evaluations to integrate the alignment with the N2/N6 Information Dominance vision and identify performance and operational risks associated with the integration of multiple systems to provide a robust, mission based capability. -Continue to conduct document reviews (of Systems Engineering Plans, Information Support Plans, Interoperability Control Document/Competitive Design Development/Consolidated Programming Document, Information Assurance Strategies, Acquisition Strategies, etc.) for Office of the Chief of Naval Operations, Assistant Secretary of the Navy for Research, Development and Acquisition, and the Program Executive Offices, and other services to ensure sound systems engineering analysis and design principles have been applied to system planning requirements, design, testing, and supportability. -Continue to perform engineering evaluation and provide buy/no-buy decisions for proposed Deviations from Specification for afloat platforms to determine performance and operational impacts of the proposed changes and their effects on the platform's mission. -Continue to provide engineering evaluation and validation of Business IT applications and IT infrastructure in order to combine, consolidate, and eliminate unnecessary or underutilized business systems for the Naval Enterprise. -Continue to provide engineering evaluation and validation of programs and ensure adherence to technical standards in the following technical domains-communications, networks, Information Storage and Retrieval/Information Surveillance Reconnaissance/Information Operations, afloat platforms (both large and small decks), submarines, shore and Maintenance Operations Center capability, command and control, and space systems. -Continue to conduct Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Certifications through design and testing analysis ensuring C4ISR delivery to the platform (shore, surface ship, submarine) is validated to meet the operational need and is interoperable with platform, force level, joint/allied/coalition forces. -Provide technical support to the Department of the Navy Chief Information Office (DoN CIO) assessment of compliance with Department of Navy Enterprise Architecture (DoN EA) as part of Title 40/Clinger-Cohen ACT confirmation process.			
Title: Coalition Warrior Interoperability Demonstration (CWID) (Now known as CWIX)	1.535	1.475	0.971
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: -Demonstrated cutting-edge industry and government technologies and transitioned them to the end-user, including Non-Governmental Organizations (NGOs), coalition partners, and the joint services. -Provided interoperability between existing and cutting-edge C4ISR systems. Integrated directly with Program Executive Office C4I and the combatant commanders at the Technical Director, Acquisition Program Manager, and Science Advisor levels, and the State and Federal First Responder Agencies at all levels. -Continued with technology selection, experimental objective design, and experiment execution to influence and direct design efforts, to satisfy some war fighter capability gaps. Year-round connectivity was maintained with end-users, vetting capability requirements and ongoing technology efforts relevant to each organization. -Experiment results were directly integrated into developmental design and engineering efforts of individual technologies to accelerate the delivery of needed capability based on Joint Urgent Operational Needs (JUONs). -Utilized operationally-relevant classified laboratory environments for joint/coalition war fighter technology experiments, while real-world field environments were utilized for technologies related to Humanitarian Assistance Disaster Relief, Homeland Security, and Homeland Defense.			
FY 2013 Plans: -Develop coalition and interagency interoperability and information sharing through coalition engagement, technology, demonstrations, and assessments leading to improvements of C4ISR systems within the Navy and in conjunction with Joint Services and Coalition efforts. -Demonstrate cutting-edge industry and government technologies and transition them to the end-user, including NGOs, coalition partners, and the joint services. -Continue to provide interoperability between existing and cutting-edge Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems. Integrate directly with Navy Program Managers (i.e. Program Executive Office Command, Control, Communications, Computers, Intelligence) and the combatant commanders at the Technical Director, Acquisition Program Manager, and Science Advisor levels, and the State and Federal First Responder Agencies at all levels. -Validate technology selection, experimental objective design, and experiment execution to influence and direct design efforts, to satisfy some warfighter capability gaps. Year-round connectivity will be maintained with end-users, vetting capability requirements and ongoing technology efforts relevant to each organization. -Experiment results will continue to be directly integrated into developmental design and engineering efforts of individual technologies to accelerate the delivery of needed capability based on Joint Urgent Operational Needs (JUONs).			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
-Establish operationally relevant classified laboratory environments for joint/coalition war fighter technology experiments, while real-world field environments will be created for emergent naval technologies related to Humanitarian Assistance Disaster Relief, Homeland Security, and Homeland Defense. ***FY 2014 Plans:*** -Develop coalition and interagency interoperability and information sharing through coalition engagement, technology, demonstrations, and assessments leading to improvements of C4ISR systems within the Navy and in conjunction with Joint Services and Coalition efforts. -Leverage Coalition Interoperability and Assurance Validate (CIAV) Future Mission Network (FMN) efforts in order to develop operationally relevant experiments focused on Navy mission enhancement in a Coalition environment. -Develop experiments integrated with North Atlantic Treaty Organization (NATO) and Troop Contributing Nation (TCN) partners in conjunction with the Coalition Warrior Interoperability eXploration, eXperimentation, eXamination, eXercise (CWIX) infrastructure (formerly Coalition Warrior Interoperability Demonstration (CWID)). -Enhance integration and engagement with Pacific Rim Coalition partners by leveraging existing experimentation and exercise venues in order to develop operationally relevant experiments focused on enhancing Navy missions. -Demonstrate cutting-edge technologies and transition them to the end-user, including Coalition Partners, and the Joint Services. -Continue to provide interoperability between existing and cutting-edge C4ISR systems. Integrate directly with Navy Program Managers (i.e. Program Executive Office Command, Control, Communications, Computers, Intelligence and the combatant commanders at the Technical Director, Acquisition Program Manager, and Science Advisor levels. -Validate technology selection, experimental objective design, and execution to influence and direct design efforts and to satisfy warfighter capability gaps in a Coalition setting. -Continue to develop operationally relevant classified laboratory environments for Joint/Coalition war fighter technology experiments. Year-round connectivity will be continued with end-users in order to provide a distributed Coalition experimentation environment focused enhancement of Navy missions.			
Title: Systems Engineering and Integration Revitalization	1.189	1.193	1.072
Articles:	0	0	0
FY 2012 Accomplishments: -Continued to implement system engineering capability recommendations. -Continued to provide increased access to systems engineering training resources. ***FY 2013 Plans:*** -Begin transition of system engineering capability into a System of Systems (SoS) engineering view. -Implement SoS integration certification in support of platform level design.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
-Develop and conduct pilot SoS engineering development training. ***FY 2014 Plans:*** -Develop Integration and Interoperability (I&I) Systems Engineering Technical Reviews (SETR) checklist in support of Assistant Secretary of the Navy for Research, Development, and Acquisition ASN(RDA). -Conduct I&I SETR events to validate and refine I&I checklist items. -Review all Navy Information Technology Procurement Requests (ITPR) for developing systems to ensure adherence to Navy Information Technology (IT) standards and capture and report metric information to support moving to bulk IT procurement to take advantage of economies of scale across the Department of the Navy.			
Title: Systems Engineering Standards and Processes	3.058	3.066	2.768
Articles:	0	0	0
FY 2012 Accomplishments: -Continued to define and implement technical authority for the interfaces between program office systems engineering and enterprise systems engineering and optimized the total value of systems engineering in product delivery. -Continued to develop processes to inject systems engineering discipline into the acquisition cycle earlier. -Continued to incorporate lessons learned from recent and emerging program issues. ***FY 2013 Plans:*** -Develop processes to integrate SoS engineering technical assessments to identify cross system dependencies. -Incorporate lessons learned from prior year system engineering efforts to ensure multi-systems processes are intuitive and meet the mission of the Navy. ***FY 2014 Plans:*** -Continue to develop processes to integrate SoS engineering technical assessments to identify cross system dependencies. -Continue to incorporate lessons learned from prior year system engineering efforts to ensure multi-systems processes are intuitive and meet the mission of the Navy. -Develop Joint cloud-enabled, secure domain environment using virtual desktop technology that allow secure and cost effective operations at the point of need, creating improved efficiencies, enhanced cyber operations and improved capabilities across a range of military operations. -Develop Utility Cloud, Storage Cloud and plan and execute risk reduction for UNCLASSIFIED/SECRET/TOPSECRET/Sensitive Compartmented Information (SCI) Data Cloud providing secure access to other users. -Develop mission effectiveness of a data centric architecture. -Develop secure thin client (enterprise applications) device capability integration with the current Navy enterprise. -Develop the future Navy cloud architecture to inform Navy acquisition programs on cloud technologies.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
-Develop Continental United States (CONUS)/Outside Continental United States (OCONUS) cloud-based capabilities.			
Accomplishments/Planned Programs Subtotals	9.013	9.085	8.053

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Space and Electronic Warfare (SEW) Engineering is a non-acquisition program that develops, tests, implements technical authority, and validates naval Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR); provides integrated architecture products and supports C4ISR systems engineering processes and standards. Activities include acquiring intellectual capital in emerging technical areas through contracts providing technical engineering expertise and surge capacity for emerging tasks.

E. Performance Metrics

The SEW engineering program will employ rigorous and consistent system engineering practices in an evolving value model to support development and deployment of shipboard, undersea, and land based capabilities based on mission and performance requirements, integrated enterprise architectures, model-validated solutions, and sustainment and supportability needs for the Command and Control, Intelligence, Networks, Communications, Space, and Business Information Technology domains.

Coalition Warrior Interoperability Experimentation (CWIX) Performance Metrics: Three key metrics: (1) Interoperability and compliance with Naval, joint, coalition and other non-governmental organization architectures, systems and equipment; (2) Compliance with Defense Information Services Agency, National Security Agency, and other joint and coalition information assurance and security standards; and (3) war fighter utility assessment across the joint and coalition spectrum. Specific metrics validate performance of individual technologies participating in CWIX.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	Various	Various:Various	4.554	0.000		0.000		0.000		-		0.000	0.000	4.554	
SEW/C4I Technology Integration	Various	Various:Various	12.985	0.000		0.000		0.000		-		0.000	0.000	12.985	
MDA Prototype SE Support	Various	Various:Various	17.376	0.000		0.000		0.000		-		0.000	0.000	17.376	
Systems Engineering & Integration Revitalization	Various	Various:Various	2.174	0.000		0.000		0.000		-		0.000	0.000	2.174	
Systems Engineering & Integration Revitalization	C/CPFF	ComGlobal:San Diego, CA	0.000	0.565	Feb 2012	0.000		0.000		-		0.000	0.000	0.565	
Systems Engineering & Integration Revitalization	C/CPFF	Unknown:Unknown	0.000	0.000		0.550	Mar 2013	0.485	Jan 2014	-		0.485	Continuing	Continuing	Continuing
Systems Engineering & Integration Revitalization	C/CPFF	METRON:Reston, VA	0.316	0.000		0.000		0.000		-		0.000	0.000	0.316	
Systems Engineering & Integration Revitalization	C/CPFF	SAIC:San Diego, CA	0.316	0.000		0.000		0.000		-		0.000	0.000	0.316	
Systems Engineering & Integration Revitalization	WR	SSC LANT:Charleston, NC	0.133	0.184	Feb 2012	0.180	Feb 2013	0.164	Feb 2014	-		0.164	Continuing	Continuing	Continuing
Systems Engineering & Integration Revitalization	WR	SSC PAC:San Diego, CA	0.343	0.461	Feb 2012	0.467	Feb 2013	0.423	Feb 2014	-		0.423	Continuing	Continuing	Continuing
Systems engineering Standards & Processes	Various	Various:Various	5.588	0.000		0.000		0.000		-		0.000	0.000	5.588	
Systems engineering Standards & Processes	C/CPFF	ComGlobal:San Diego, CA	0.000	1.454	Feb 2012	0.000		0.000		-		0.000	0.000	1.454	
Systems engineering Standards & Processes	C/CPFF	Unknown:Unknown	0.000	0.000		1.389	Mar 2013	1.249	Jan 2014	-		1.249	Continuing	Continuing	Continuing
Systems engineering Standards & Processes	C/CPFF	METRON:Reston, VA	0.813	0.000		0.000		0.000		-		0.000	0.000	0.813	
Systems engineering Standards & Processes	C/CPFF	SAIC:San Diego, CA	0.812	0.000		0.000		0.000		-		0.000	0.000	0.812	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems engineering Standards & Processes	WR	SSC LANT:Charleston, NC	0.342	0.474	Feb 2012	0.462	Feb 2013	0.422	Feb 2014	-		0.422	Continuing	Continuing	Continuing
Systems engineering Standards & Processes	WR	SSC PAC:San Diego, CA	0.884	1.233	Feb 2012	1.200	Feb 2013	1.096	Feb 2014	-		1.096	Continuing	Continuing	Continuing
Systems A&E and Validation	Various	Various:Various	13.188	0.000		0.000		0.000		-		0.000	0.000	13.188	
Distributed C2 Interoperability Requirement analysis	Various	Various:Various	16.583	0.000		0.000		0.000		-		0.000	0.000	16.583	
C4ISR Architecture and Standards	Various	Various:Various	14.268	0.000		0.000		0.000		-		0.000	0.000	14.268	
End-to-End System Engineering and Integrated Design	Various	Various:Various	10.994	0.000		0.000		0.000		-		0.000	0.000	10.994	
Info. Repository/Naval Architecture	Various	Various:Various	4.000	0.000		0.000		0.000		-		0.000	0.000	4.000	
C4ISR Systems Engineering	Various	Various:Various	5.157	0.000		0.000		0.000		-		0.000	0.000	5.157	
C4ISR Systems Engineering	WR	NSWC Dahlgren:Dahlgren, MD	0.000	0.309	Feb 2012	0.311	Feb 2013	0.301	Feb 2014	-		0.301	0.000	0.921	
C4ISR Systems Engineering	MIPR	DISA:Pensacola, FL	0.000	0.088	Feb 2012	0.089	Feb 2013	0.087	Feb 2014	-		0.087	0.000	0.264	
C4ISR Systems Engineering	C/CPFF	ComGlobal:San Diego, CA	2.200	1.747	Feb 2012	1.993	Feb 2013	1.916	Feb 2014	-		1.916	Continuing	Continuing	Continuing
C4ISR Systems Engineering	WR	SSC LANT:Charleston, NC	0.440	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
C4ISR Systems Engineering	WR	SSC PAC:San Diego, CA	1.188	0.963	Feb 2012	0.969	Feb 2013	0.939	Feb 2014	-		0.939	Continuing	Continuing	Continuing
C4ISR Systems Engineering	WR	NAVAIR:Patuxent River, MD	0.088	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C4ISR Systems Engineering	MIPR	CECOM:Fort Monmouth, NJ	0.264	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
C4ISR Systems Engineering	MIPR	AF:Hill AFB, UT	0.220	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	115.226	7.478		7.610		7.082		0.000		7.082			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SEW Eng/CWID	Various	Various:Various	30.171	0.000		0.000		0.000		-		0.000	0.000	30.171	
SEW Eng/CWID	MIPR	Defense Information Systems Agency:Arlington, VA	0.107	0.067	Apr 2012	0.065	Apr 2013	0.040	Apr 2014	-		0.040	Continuing	Continuing	Continuing
SEW Eng/CWID	WR	Joint Interoperability Test Command:Fort Huachuca, AZ	0.720	0.595	Mar 2012	0.573	Mar 2013	0.356	Mar 2014	-		0.356	Continuing	Continuing	Continuing
SEW Eng/CWID	WR	SSC Pacific:San Diego, CA	0.758	0.758	Dec 2011	0.727	Dec 2012	0.506	Dec 2013	-		0.506	Continuing	Continuing	Continuing
SEW Eng/CWID	MIPR	US Northern Command:Peterson AFB, CO	0.115	0.115	Jan 2012	0.110	Jan 2013	0.069	Jan 2014	-		0.069	Continuing	Continuing	Continuing
SEW Eng/JRAE	Various	Various:Various	15.978	0.000		0.000		0.000		-		0.000	0.000	15.978	
		Subtotal	47.849	1.535		1.475		0.971		0.000		0.971			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ACQ Workforce Fund	Various	Various:Various	0.071	0.000		0.000		0.000		-		0.000	0.000	0.071	
		Subtotal	0.071	0.000		0.000		0.000		0.000		0.000	0.000	0.071	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	163.146	9.013		9.085		8.053		0.000		8.053			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*

Project 2144

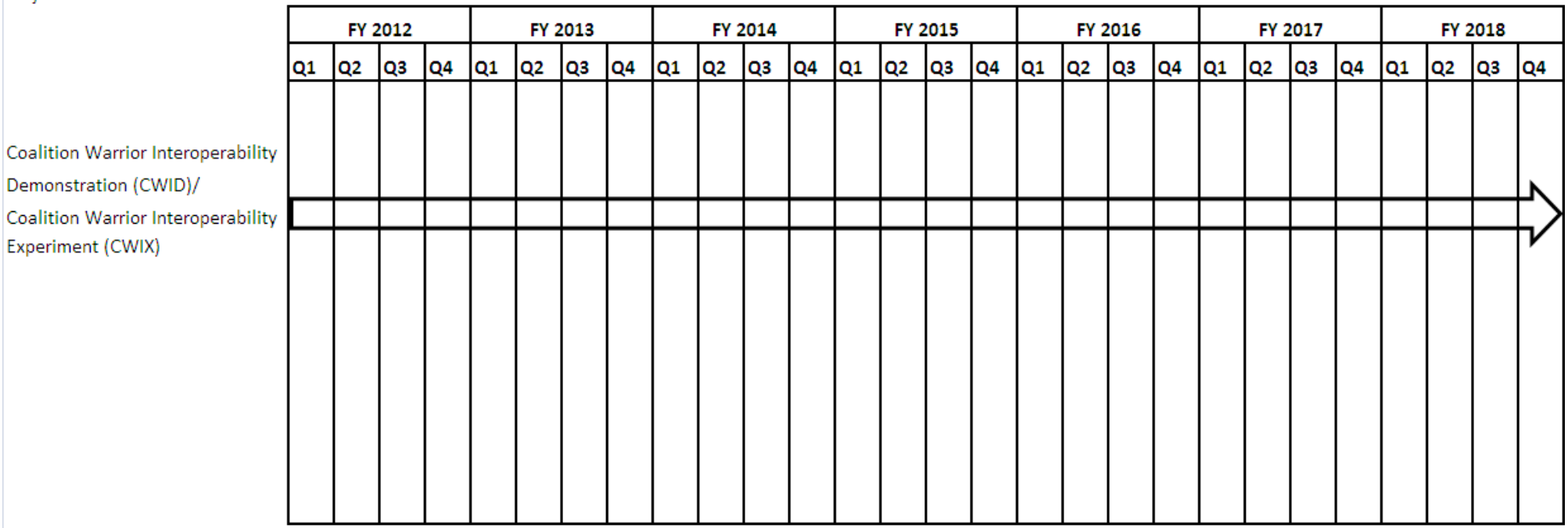

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2144: *Space & Elec Warfare Engineering*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2144				
Coalition Warrior Interoperability Demonstration/Coalition Warrior Interoperability Experiment (CWID/CWIX): Schedule as directed by the Joint Management Office (JMO) during execution year.	1	2012	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2356: *Maritime Concept Generation & Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2356: *Maritime Concept Generation & Development*	0.000	0.000	8.323	17.194	-	17.194	17.750	8.458	8.738	8.888	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Beginning in FY 2013 this project is funded to replace Project 2357 (Maritime Battle Center), and more accurately reflect the current mission of Navy Warfare Development Command (NWDC) experimentation. Funding projected for Project 2357 will be moved to Project 2356.

A. Mission Description and Budget Item Justification

Funds the development of new or improved war fighting capabilities through the Concept Generation and Concept Development (CG/CD) program and the related experimentation. The priorities for the CG/CD program are to explore near/far-term technological and non-technological solutions to war fighting gaps across all naval warfare areas. The CG/CD experimentation efforts include planning, systems engineering and integration, execution, data collection, analysis, and assessment requirements for a wide range of experiment venues, such as workshops, seminars, wargames, limited objective experiments, limited technical experiments, and live force events. Where appropriate, CG/CD experimentation will be conducted in a joint, or coalition environment.

Also supports the fleet's experimentation program (Fleet Experimentation - FLEX) by providing planning, systems engineering and integration, execution, data collection, and analysis support to the Mission/Warfare Area Office of Primary Responsibility where appropriate and as available. This support conducts experimentation in support of the Comander's Guidance for Fleet Experimentation promulgated by Commander USFF. This program historically does not meet established execution benchmarks. It differs from other Research, Development, Test and Evaluation (RDT&E) programs because it relies upon fleet participation, and thus is scheduled around fleet or staff availability. Because that availability frequently occurs during the spring and summer operational schedules, the overall RDT&E obligation/expenditure rates do not align with OSD practice. As a result, this project's obligation rates do not begin to approach benchmark until the program nears the fiscal year's end while its expenditure rates generally do not approach benchmark until midway through the second year of its appropriation.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: New Accomplishment/Planned Program Entry	0.000	8.323	17.194
Articles:		0	0
Description: The increase in funding from FY 2013 to FY 2014 reflects a new CNO directed effort to establish a CNO Rapid Innovation Cell (CRIC), managed by NWDC and supported by the Office of Naval Research. The CRIC is intended to identify			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2356: *Maritime Concept Generation & Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
new, innovative ideas and technologies outside of the mainstream Navy development and acquisition process, and get them to the Fleet for rapid testing and evaluation. ***FY 2013 Plans:*** -Continue all FY 2012 efforts started under Project 2357 and carry forward. - Continue participation in Joint Forces Command (JFCOM) experimentation continuum - Continue Limited Objective Experiments. - Continue CONOPS Development Experiments. - Continue the Sonar/Radar Data Comparison experiment. - Continue the Millimeter Wave Chaff experiment. - Continue the Surface Action Group Modeling experiment. - Continue the Harpoon Seeker Modeling in an Electronic Attack environment experiment. - Continue the Fast Attack Craft/Fast Inshore Attack Craft experiment. - Continue the multi-year series of Littoral Force Protection experiments. - Continue the final spiral of the multi-year series of Tactical Tomahawk 3rd Party Targeting experiments. - Continue the multi-year series of Surface Ship Periscope Detection experiments. - Continue the multi-year series of Submarine Unmanned Aerial System experiments. - Continue the multi-year series of Submarine Communications at Speed and Depth experiments. - Continue the multi-year series of Mine Countermeasures in Support of Homeland Defense experiments. - Continue the multi-year series of Littoral Combat Ship Mine Warfare Mission Modules experiments. - Continue the multi-year series of SPIKE experiments. - Continue the Sonar Active Target Evaluation experiment. - Continue the multi-year series of Project Guillotine experiments. - Continued the multi-year series of Submarine/Unmanned Underwater Vehicle Communications experiments. - Initiated and execute Sea Trial Experiments, War Games, and Seminars based on the Execution Plan 13, currently being developed. - Initiate and execute experiments in support of the CNO-directed Concept Generation and Concept Development effort. ***FY 2014 Plans:*** -Continue all FY 2013 efforts and carry forward. -Execute the CNO Rapid Innovation Cell (CRIC) projects.			
Accomplishments/Planned Programs Subtotals	0.000	8.323	17.194

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2356: *Maritime Concept Generation & Development*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

There is no acquisition strategy - this is not an acquisition program nor is materiel purchased with this funding. This funding is used to buy people to generate/develop/validate concepts, or to build and analyze the results of experiments focused on improved processes and tactics/techniques/procedures to mitigate identified war fighting gaps. The majority of this funding buys a core group of contractors who provide experiment design, execution and analysis support while the remainder is used to buy specific skill sets that are not part of the core group, and also cover some of the engineering and integration costs associated with certain experiments.

E. Performance Metrics

Maritime Concept Generation and Development:

- Refine concepts and identify key performance levels necessary for implementation.
- Demonstrate feasibility and discriminate among competing concepts and implementation alternatives.
- Understand potential military effectiveness and risk.
- Evaluate how much of the new capability and attendant force structure is needed.
- Learn how to operate the new force and combine it with the legacy force.
- Develop recommended Doctrine, Organization, Training, Materiel, Leadership, and Personnel (DOTMLP) changes.
- Develop fleet war fighting requirements for submission to the OPNAV Navy Capabilities Development Process (NCDP) to inform Navy acquisition decisions.
- Integrate emergent concepts and technologies, leading to rapid introduction of needed war fighting capabilities in the fleet.
- Rapidly mature concepts, technologies, and doctrine.
- Focus on near, mid and long term war fighting challenges to realize increased war fighting effectiveness.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2356: *Maritime Concept Generation & Development*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Test and Evaluation	MIPR	Defense Technical Information Center:Ft Belvoir VA	0.000	0.000		2.000	Oct 2012	3.000	Oct 2013	-		3.000	Continuing	Continuing	Continuing
System Test and Evaluation	C/FFP	SPAWARSYSCEN Atlantoic:Charleston SC	0.000	0.000		2.195	Jan 2013	1.500	Jan 2014	-		1.500	Continuing	Continuing	Continuing
System Test and Evaluation	C/FFP	Naval Undesea Warfare Center:Newport RI	0.000	0.000		0.500	Mar 2013	0.300	Mar 2014	-		0.300	Continuing	Continuing	Continuing
System Test and Evaluation	C/FFP	Naval Postgraduate School:Monterey CA	0.000	0.000		0.500	May 2013	0.500	May 2014	-		0.500	Continuing	Continuing	Continuing
System Test and Evaluation	C/FFP	Navy Warfare Development Command:Norfolk VA	0.000	0.000		1.858	Nov 2012	9.315	Nov 2013	-		9.315	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		7.053		14.615		0.000		14.615			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	C/FFP	Navy Warfare Development Command:Norfolk VA	0.000	0.000		1.270	Oct 2012	2.579	Oct 2013	-		2.579	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		1.270		2.579		0.000		2.579			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		8.323		17.194		0.000		17.194			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2356: *Maritime Concept Generation & Development*

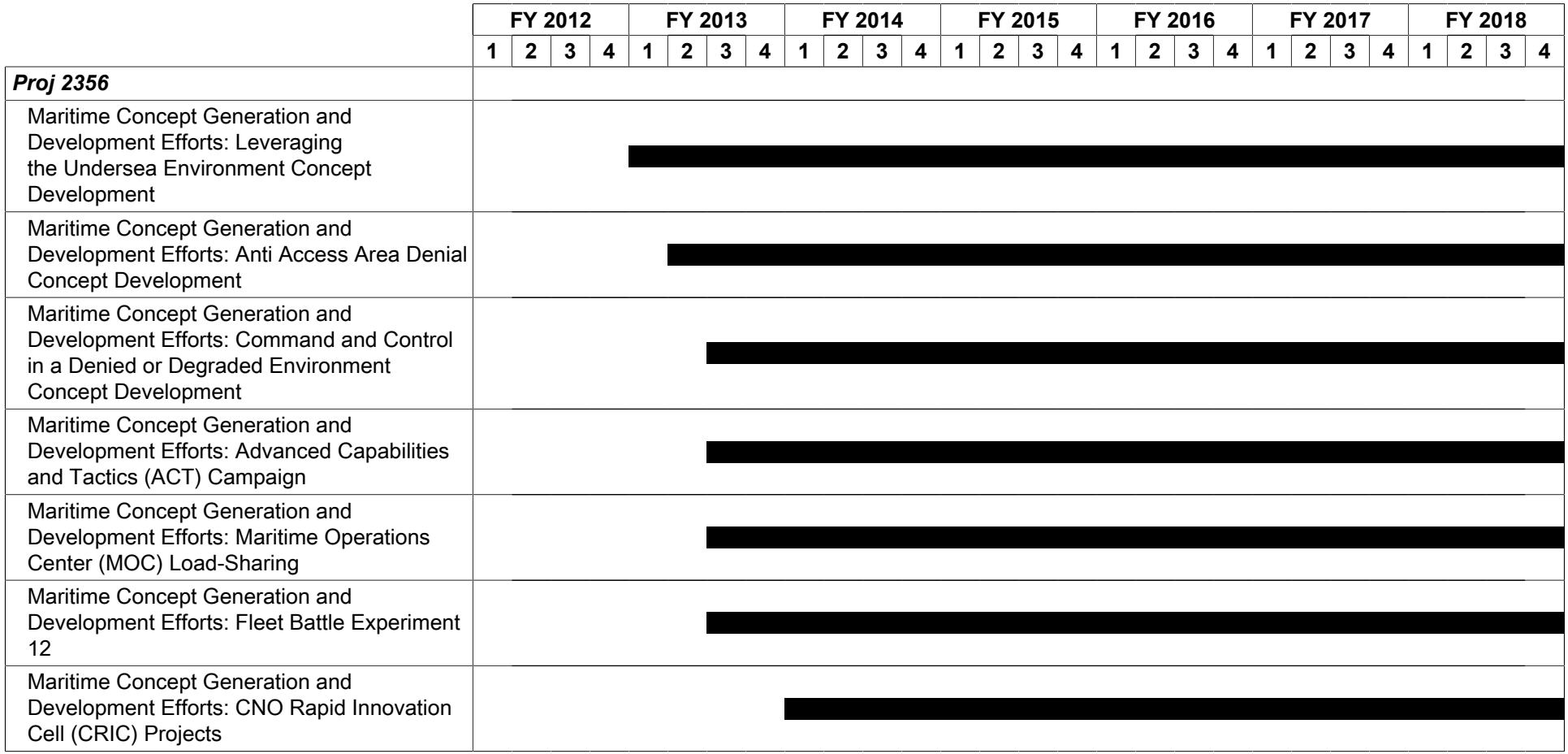


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604707N: *SEW Architecture/Eng Support*	**PROJECT** 2356: *Maritime Concept Generation & Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2356				
Maritime Concept Generation and Development Efforts: Leveraging the Undersea Environment Concept Development	1	2013	4	2018
Maritime Concept Generation and Development Efforts: Anti Access Area Denial Concept Development	2	2013	4	2018
Maritime Concept Generation and Development Efforts: Command and Control in a Denied or Degraded Environment Concept Development	3	2013	4	2018
Maritime Concept Generation and Development Efforts: Advanced Capabilities and Tactics (ACT) Campaign	3	2013	4	2018
Maritime Concept Generation and Development Efforts: Maritime Operations Center (MOC) Load-Sharing	3	2013	4	2018
Maritime Concept Generation and Development Efforts: Fleet Battle Experiment 12	3	2013	4	2018
Maritime Concept Generation and Development Efforts: CNO Rapid Innovation Cell (CRIC) Projects	1	2014	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2357: *Maritime Battle Center*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2357: *Maritime Battle Center*	320.369	8.618	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	328.987
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Sea Trial funding has been moved to a new project - 3319 Fleet Experimentation. The funding decrease in FY 2012 is due to realignment of funds to the new project.

A. Mission Description and Budget Item Justification

Funds the development of new or improved war fighting capabilities through the Concept Generation and Concept Development (CG/CD) program. The priorities for the CG/CD program are to explore near-/far-term technological and non-technological solutions to war fighting gaps across all naval warfare areas. The CG/CD experimentation efforts include planning, systems engineering and integration, execution, data collection, analysis, and assessment requirements for a wide range of experiment venues, such as workshops, seminars, wargames, limited objective experiments, limited technical experiments, and live force events. Where appropriate, CG/CD experimentation will be conducted in a joint, or coalition environment.

Also supports the fleet's experimentation program (Sea Trial) by providing planning, systems engineering and integration, execution, data collection, and analysis support to the Sea Trial Operational Agents where appropriate and as available. This support is focused on experimentation contained in the annual Sea Trial Execution Plan.

This program historically does not meet established execution benchmarks. It differs from other Research, Development, Test and Evaluation (RDT&E) programs because it relies upon fleet participation, and thus is scheduled around fleet or staff availability. Because that availability frequently occurs during the spring and summer operational schedules, the overall RDT&E obligation/expenditure rates do not align with OSD practice. As a result, this project's obligation rates do not begin to approach benchmark until the program nears the fiscal year's end while its expenditure rates generally do not approach benchmark until midway through the second year of its appropriation.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: FBE Analysis and Core Support	8.618	0.000	0.000
Articles:	0		
Description: Because of the synergistic relationship between Maritime Battle Center experimentation efforts and the fleet's Sea Trial experimentation efforts, funding for both endeavors have been combined under one project, the Maritime Battle Center. The			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2357: *Maritime Battle Center*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Sea Trial aspect of this project's mission is driven by annual priorities. The priorities are further prioritized and approved by the Sea Trial Executive Steering Group (STESG). ***FY 2012 Accomplishments:*** - Continued participation in Joint Forces Command (JFCOM) experimentation continuum - Continued Limited Objective Experiments. - Continued CONOPS Development Experiments. - Continued the Sonar/Radar Data Comparison experiment. - Continued the Millimeter Wave Chaff experiment. - Continued the Surface Action Group Modeling experiment. - Continued the Harpoon Seeker Modeling in an Electronic Attack environment experiment. - Continued the Fast Attack Craft/Fast Inshore Attack Craft experiment. - Continued the multi-year series of Littoral Force Protection experiments. - Continued the final spiral of the multi-year series of Tactical Tomahawk 3rd Party Targeting experiments. - Continued the multi-year series of Surface Ship Periscope Detection experiments. - Continued the multi-year series of Submarine Unmanned Aerial System experiments. - Continued the multi-year series of Submarine Communications at Speed and Depth experiments. - Continued the multi-year series of Mine Countermeasures in Support of Homeland Defense experiments. - Continued the multi-year series of Littoral Combat Ship Mine Warfare Mission Modules experiments. - Continued the multi-year series of SPIKE experiments. - Continued the Sonar Active Target Evaluation experiment. - Continued the multi-year series of Project Guillotine experiments. - Continued the multi-year series of Submarine/Unmanned Underwater Vehicle Communications experiments. - Initiated and executed Sea Trial Experiments, War Games, and Seminars based on the Execution Plan 12, currently being developed. - Initiated and executed experiments in support of the CNO-directed Concept Generation and Concept Development effort.			
Accomplishments/Planned Programs Subtotals	8.618	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2357: *Maritime Battle Center*

D. Acquisition Strategy

There is no acquisition strategy - this is not an acquisition program nor is materiel purchased with this funding. This funding is used to buy people to generate/develop/validate concepts, or to build and analyze the results of experiments focused on improved processes and tactics/techniques/procedures to mitigate identified war fighting gaps. The majority of this funding buys a core group of contractors who provide experiment design, execution and analysis support while the remainder is used to buy specific skill sets that are not part of the core group, and also cover some of the engineering and integration costs associated with certain experiments.

E. Performance Metrics

Maritime Battle Center:

- Refine concepts and identify key performance levels necessary for implementation.
- Demonstrate feasibility and discriminate among competing concepts and implementation alternatives.
- Understand potential military effectiveness and risk.
- Evaluate how much of the new capability and attendant force structure is needed.
- Learn how to operate the new force and combine it with the legacy force.
- Develop recommended Doctrine, Organization, Training, Materiel, Leadership, and Personnel (DOTMLP) changes.
- Develop fleet war fighting requirements for submission to the OPNAV Navy Capabilities Development Process (NCDP) to inform Navy acquisition decisions.
- Integrate emergent concepts and technologies, leading to rapid introduction of needed war fighting capabilities in the fleet.
- Rapidly mature Sea Shield, Sea Strike, Sea Basing, and FORCEnet concepts, technologies, and doctrine.
- Focus on near, mid and long term war fighting challenges to realize increased war fighting effectiveness.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2357: *Maritime Battle Center*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Test and Evaluation	MIPR	Defense Technical Information Center:Ft Belvoir VA	248.277	0.000		0.000		0.000		-		0.000	0.000	248.277	248.277
System Test and Evaluation	C/FFP	NAVSEA:Washington DC	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	2.000
System Test and Evaluation	C/FFP	SPAWAR:San Diego CA	2.000	2.012	Jan 2012	0.000		0.000		-		0.000	0.000	4.012	4.012
System Test and Evaluation	C/FFP	SPAWARSYSCEN Atlantic:Charleston SC	3.500	2.270	Mar 2012	0.000		0.000		-		0.000	0.000	5.770	5.770
System Test and Evaluation	C/FFP	SPAWARSYSCEN Pacific:San Diego CA	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	2.000
System Test and Evaluation	C/FFP	Naval Underwater Warfare Center:Newport RI	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	1.000
System Test and Evaluation	C/FFP	Naval Surface Warfare Center:CA, IN, MD, VA	1.500	0.000		0.000		0.000		-		0.000	0.000	1.500	1.500
System Test and Evaluation	C/FFP	Naval Postgraduate School:Monterey CA	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	2.000
System Test and Evaluation	C/FFP	Navy Warfare Development Command:Norfolk VA	3.882	3.000	Jan 2012	0.000		0.000		-		0.000	0.000	6.882	6.882
		Subtotal	266.159	7.282		0.000		0.000		0.000		0.000	0.000	273.441	273.441

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	C/FFP	Navy Warfare Development	51.063	1.336	Jan 2012	0.000		0.000		-		0.000	0.000	52.399	52.399

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2357: *Maritime Battle Center*

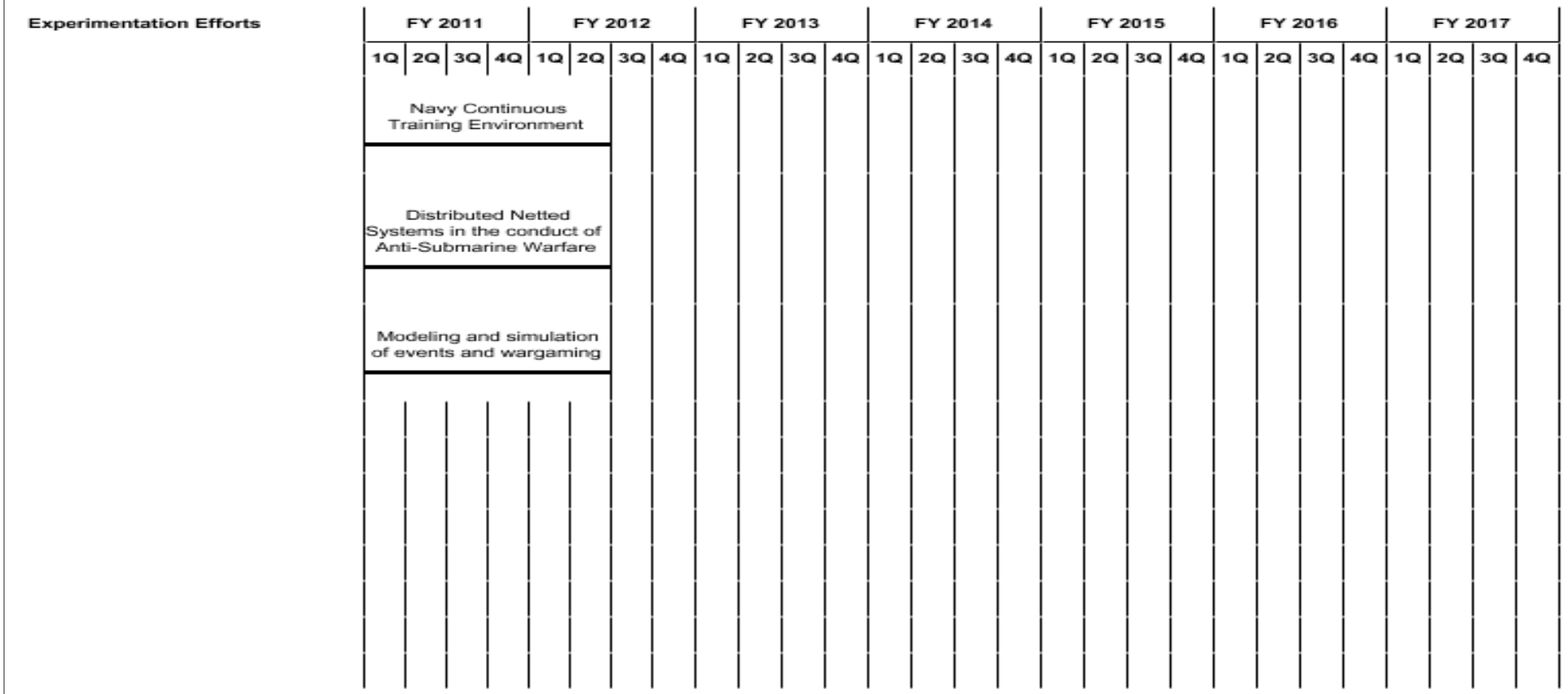
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Command:Norfolk VA													
Program Management	C/FFP	Naval Postgraduate School:Monterey CA	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	1.000
Program Management	C/FP	SPAWAR:San Diego CA	1.999	0.000		0.000		0.000		-		0.000	0.000	1.999	1.999
ACQ Workforce Fund	Various	Various:Various	0.148	0.000		0.000		0.000		-		0.000	0.000	0.148	0.148
		Subtotal	54.210	1.336		0.000		0.000		0.000		0.000	0.000	55.546	55.546

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	320.369	8.618		0.000		0.000		0.000		0.000	0.000	328.987	328.987

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 2357: *Maritime Battle Center*



2013PB - 0604707N - 2357

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604707N: *SEW Architecture/Eng Support*	**PROJECT** 2357: *Maritime Battle Center*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Experimentation Efforts				
Navy Continuous Training Environment	1	2012	2	2012
Distributed Netted Systems in the conduct of Anti-Submarine Warfare	1	2012	2	2012
Modeling and simulation of events and wargaming	1	2012	2	2012

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 3319: *Fleet Experimentation*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3319: *Fleet Experimentation*	0.700	20.847	13.369	12.301	-	12.301	12.551	14.307	13.880	14.140	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Since FY 2006 the funding for Fleet Experimentation (Sea Trial) has been contained in Project 2357 - Maritime Battle Center. In FY 2012 Project 2357 has been split with the funding for Navy Warfare Development Command (NWDC) experimentation remaining in 2357 while Fleet Experimentation (Sea Trial) funding has been moved to this new project - 3319 Fleet Experimentation. The funding beginning in FY 2012 is due to that realignment and is a transfer from Project 2357.

A. Mission Description and Budget Item Justification

The mission of the Sea Trial (Fleet Experimentation) program is the development of new or improved war fighting capabilities. Sea Trial evaluates and validates emerging Navy concepts, concepts of operations (CONOPS), doctrine and technologies through focused experimentation, rigorous analysis, and assessment and is dedicated to providing solutions to near term (within the Fiscal Year Defense Plan) war fighting gaps. Sea Trial efforts are prioritized by the flag level Sea Trial Executive Steering Group (STESG), approved by Commander, U.S. Fleet Forces, and contained in the Sea Trial annual execution plan.

Sea Trial conducts experiments that examine both technological and non-technological solutions to war fighting gaps across all naval warfare areas. Sea Trial experiments run the gamut from workshops and seminars to fleet experiments, and involve all facets of experimentation including planning, systems engineering and integration, execution, data collection, analysis, and assessment. While Navy-centric, Sea Trial efforts include joint and coalition partners when appropriate.

This program historically does not meet established execution benchmarks. Sea Trial experimentation differs from other Research, Development, Test and Evaluation (RDT&E) programs because it is based upon Fleet operational availability vice independently scheduled through war fighting labs. Because Fleet experimentation frequently must occur during the spring and summer operational schedules, the overall RDT&E obligation/expenditure rates do not align with OSD practice. As a result, Sea Trial's obligation rates do not begin to approach benchmark until the program nears the fiscal year's end while its expenditure rates generally do not approach benchmark until midway through the second year of its appropriation.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Fleet Experimentation	20.847	13.369	12.301
Articles:	0	0	0
Description: Decrease in funding from FY 2012 to FY 2013 is due to completion of the CNO sponsored 4G Demo Load.			
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 3319: *Fleet Experimentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Initiate and complete experiments in support of the CNO-directed Concept Generation and Concept Development program. - Initiate and complete experiments tasked by U.S. Fleet Forces in support of Fleet Experimentation. ***FY 2013 Plans:*** - Initiate and complete experiments in support of the CNO-directed Concept Generation and Concept Development program. - Initiate and complete experiments tasked by U.S. Fleet Forces in support of Fleet Experimentation ***FY 2014 Plans:*** - Initiate and complete experiments in support of the CNO-directed Concept Generation and Concept Development program. - Initiate and complete experiments tasked by U.S. Fleet Forces in support of Fleet Experimentation			
Accomplishments/Planned Programs Subtotals	20.847	13.369	12.301

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

There is no acquisition strategy - this is not an acquisition program nor is materiel purchased with this funding. This funding is used for between 30 and 40 experimental initiatives annually, focused on addressing fleet identified capability gaps, and primarily buys the people to design and execute the experiments and analyze the results.

E. Performance Metrics

Fleet Experimentation:
- Refine concepts and identify key performance levels necessary for implementation.
- Demonstrate feasibility and discriminate among competing concepts and implementation alternatives.
- Understand potential military effectiveness and risk.
- Evaluate how much of the new capability and attendant force structure is needed.
- Learn how to operate the new force and combine it with the legacy force.
- Develop recommended Doctrine, Organization, Training, Materiel, Leadership, and Personnel (DOTMLP) changes.
- Develop fleet war fighting requirements for submission to the OPNAV Navy Capabilities Development Process (NCDP) to inform Navy acquisition decisions.
- Integrate emergent concepts and technologies, leading to rapid introduction of needed war fighting capabilities in the fleet.
- Rapidly mature Sea Shield, Sea Strike, Sea Basing, and FORCEnet concepts, technologies, and doctrine.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 3319: *Fleet Experimentation*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Test and Evaluation	MIPR	Defense Technical Information Center:Ft Belvoir VA	0.000	1.000	Jan 2012	1.350	Oct 2012	1.200	Oct 2013	-		1.200	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	NAVSEA:Washington DC	0.000	2.000	Jun 2012	0.600	Jun 2013	1.500	Oct 2013	-		1.500	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	SPAWAR:San Diego CA	0.000	1.838	Mar 2012	2.000	Oct 2012	1.200	Oct 2013	-		1.200	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	SPAWARSYSCEN Atlantic:Charleston SC	0.000	1.823	Mar 2012	1.250	Jan 2013	0.600	Feb 2014	-		0.600	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	SPAWARSYSCEN Pacific:San Diego CA	0.000	2.300	Mar 2012	2.200	Oct 2012	1.000	Oct 2013	-		1.000	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	Naval Undersea Warfare Center:Newport RI	0.000	0.500	Jan 2012	0.750	Nov 2012	0.700	Mar 2014	-		0.700	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	Naval Surface Warfare Center:CA, IN, MD, VA	0.000	1.000	Jun 2012	0.401	Mar 2013	0.500	Oct 2013	-		0.500	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	Naval Postgraduate School:Monterey CA	0.000	1.500	Jun 2012	1.400	Jan 2013	1.000	Jan 2014	-		1.000	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	Navy Warfare Development Command:Norfolk VA	0.000	0.500	Mar 2012	0.358	Mar 2013	0.500	Oct 2013	-		0.500	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	Naval Research Laboratory:Washington DC	0.000	0.000		0.000		1.000	Oct 2013	-		1.000	Continuing	Continuing	Continuing
System Test and Evaluation	C/FFP	Naval Air Warfare Center:Point Mugu CA	0.000	0.000		0.000		0.600	Jan 2014	-		0.600	Continuing	Continuing	Continuing
Systems Test and Evaluation	C/FFP	Fleet Industrial Supply:Norfolk VA	0.000	0.000		0.000		0.200	Oct 2013	-		0.200	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 3319: *Fleet Experimentation*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Test and Evaluation	C/FFP	Naval Air Warfare Center Aircraft Divisiion:Patuxent River MD	0.000	6.609	Apr 2012	0.000		0.200	Dec 2013	-		0.200	Continuing	Continuing	Continuing
System Test and Evaluation	MIPR	Air Force Research Lab:Wright Patterson AFB OH	0.000	0.000		1.000	May 2013	1.000	Dec 2013	-		1.000	Continuing	Continuing	Continuing
		Subtotal	0.000	19.070		11.309		11.200		0.000		11.200			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	C/FFP	SPAWAR:San Diego CA	0.000	1.527	Jan 2012	0.810	Dec 2012	0.500	Dec 2013	-		0.500	Continuing	Continuing	Continuing
Program Management	C/FFP	Naval Postgraduate School:Montery CA	0.700	0.000		0.750	Nov 2012	0.000		-		0.000	0.000	1.450	1.450
Program Managment	C/FFP	US Fleet Forces Command:Norfolk VA	0.000	0.000		0.500	Oct 2012	0.200	Nov 2013	-		0.200	Continuing	Continuing	Continuing
Program Management	C/FFP	Naval Air Warfare Center Aircraft Division:Patuxent River MD	0.000	0.250	Apr 2012	0.000		0.200	Oct 2013	-		0.200	Continuing	Continuing	Continuing
Program Management	C/FFP	Naval Surface Warfare Command:DahlgrenVA	0.000	0.000		0.000		0.201	Dec 2013	-		0.201	Continuing	Continuing	Continuing
		Subtotal	0.700	1.777		2.060		1.101		0.000		1.101			

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.700	20.847		13.369		12.301		0.000		12.301			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 3319: *Fleet Experimentation*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604707N: *SEW Architecture/Eng Support*	PROJECT 3319: *Fleet Experimentation*

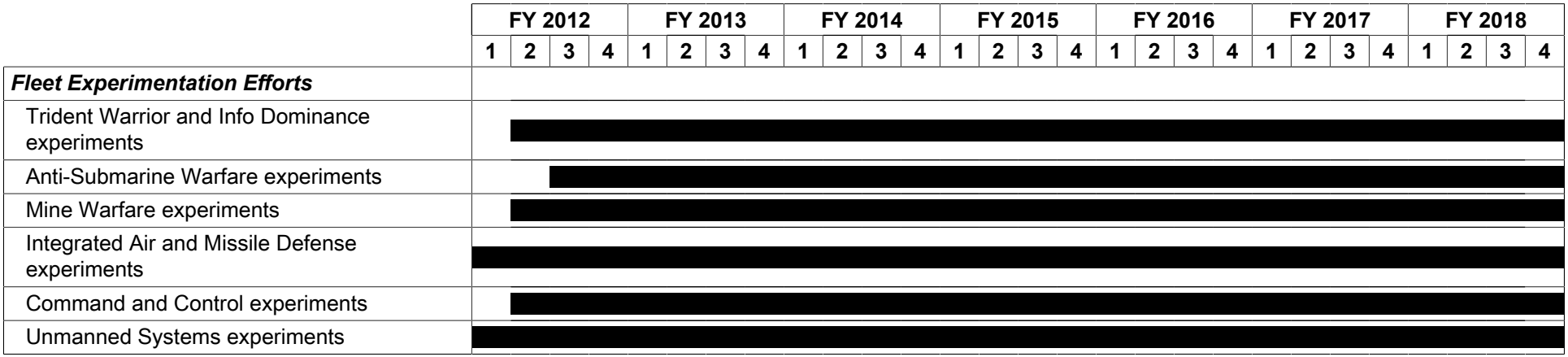


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604707N: *SEW Architecture/Eng Support*	**PROJECT** 3319: *Fleet Experimentation*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Fleet Experimentation Efforts				
Trident Warrior and Info Dominance experiments	2	2012	4	2018
Anti-Submarine Warfare experiments	3	2012	4	2018
Mine Warfare experiments	2	2012	4	2018
Integrated Air and Missile Defense experiments	1	2012	4	2018
Command and Control experiments	2	2012	4	2018
Unmanned Systems experiments	1	2012	4	2018