Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy											Date: February 2015	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604218N *I Air/Ocean Equipment Engineering*							
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	75.298	3.915	2.164	4.515	-	4.515	2.156	2.600	3.192	3.260	Continuing	Continuing
2345: *Fleet METOC Equipment*	54.977	2.542	1.224	3.379	-	3.379	0.923	1.356	1.939	1.980	Continuing	Continuing
2346: *METOC Sensor Engineering*	20.321	1.373	0.940	1.136	-	1.136	1.233	1.244	1.253	1.280	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Air/Ocean Equipment Engineering (AOEE) Program Element provides new capabilities to support naval combat forces. This program engineers and developmentally tests organic and remote sensors, communication interfaces, and processing and display devices. This equipment is engineered to measure, ingest, store, process, distribute and display conditions of the physical environment that are essential to the optimum employment and performance of naval warfare systems. AOEE also engineers capabilities for shipboard and shore-based tactical systems. A major Area of focus for the AOEE program is to provide the engineering development of specialized equipment and measurement capabilities that are intended to monitor specific conditions of the physical environment in hostile and remote areas in response to fleet demand signals for increased sensing capability and capacity to support battlespace collections and prediction on short to intermediate time scales. With such capabilities, the war fighters' situational awareness of the operational effects of the physical environment are made more certain.

Major emphasis is on the Meteorological and Oceanographic Future Mission Capabilities (METOC FMC) project.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	4.026	2.164	2.526	-	2.526
Current President's Budget	3.915	2.164	4.515	-	4.515
Total Adjustments	-0.111	-	1.989	-	1.989
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.111	-			
• Program Adjustments	-	-	32.299	-	32.299
• Rate/Misc Adjustments	-	-	-30.310	-	-30.310

Change Summary Explanation

The FY 2016 funding request was reduced by $0.2 million to account for the availability of prior year execution balances.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy	Date: February 2015
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604218N *I Air/Ocean Equipment Engineering*

Technical: The Littoral Battlespace Sensing Unmanned Undersea Vehicles (LBS-UUV) program's primary focus has shifted from the Engineering and Manufacturing Development phase to the Production phase.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604218N / *Air/Ocean Equipment Engineering*				Project (Number/Name) 2345 / *Fleet METOC Equipment*			
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
2345: *Fleet METOC Equipment*	54.977	2.542	1.224	3.379	-	3.379	0.923	1.356	1.939	1.980	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the engineering and manufacturing development of sensors, communication interfaces, processing and display meteorological and oceanographic (METOC) equipment. This equipment is designed to provide future mission capabilities for war fighters to measure, ingest, store, process, distribute and display METOC parameters and derived products.

This project also exploits new government off-the-shelf /commercial off-the-shelf technologies, tactical sensors and web enablement for the Navy's computer-based tactical shipboard and shore capability used to predict and assess the operational effects of the physical environment on the performance of platforms, weapons and sensor systems. This project includes development of warfare specific mission planning modules to support unmanned systems with integration of data from environmental and tactical sensor systems, model forecast information and Geospatial Information & Services Databases. This project also supports development of autonomous environmental sensing systems for situational awareness and tactical decision aid/mission planner support, as well as iridium and advanced satellite communication integration in METOC sensor, vehicle control and mission planning systems that will be required to achieve Chief of Naval Operation objectives for information dominance and decision superiority.

Major emphasis areas include the Meteorological and Oceanographic Future Mission Capabilities (METOC FMC) project and the Environmental Satellite Receiver Processor (ESRP) (comprised of AN/SMQ-11 (sea and shore configuration) and AN/FMQ-17 (shore configuration)) program.

FY 2016 request provides for the continued development of advanced software tools for METOC asset allocation, METOC decision support software applications and interfaces to tactical and strategic decision aids along with component and prototype efforts associated with acquiring environmental data, and the development of an end-to-end methodology to collect, fuse, and integrate these data into Navy and DoD networks and command and control nodes, and continue the development to support infrastructure for advanced global and regional prediction systems. Begin the Dual Band Radar design and development efforts for the new weather radar software for CVN 78 class ships.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**
Title: Meteorological and Oceanographic (METOC) Future Mission Capabilities (FMC)	2.008	0.839	2.951	-	2.951
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Continued advanced software tools development for METOC asset allocation, METOC decision support software applications, and interfaces to tactical and strategic decision aids along with component and prototype					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2345 / *Fleet METOC Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
efforts associated with acquiring environmental data. Continued development of an end-to-end methodology to collect, fuse, and integrate these data into Navy and DoD networks and command & control nodes. Continued development of support infrastructure for advanced global & regional METOC prediction systems. ***FY 2015 Plans:*** Continue advanced METOC infrastructure development for METOC decision support software applications and interfaces to tactical and strategic decision aids along with component and prototype efforts associated with acquiring environmental data. Continue development of an end-to-end methodology to collect, fuse, and integrate these data into Navy and DoD networks and command & control nodes. Continue development of support infrastructure for advanced global & regional METOC prediction systems. ***FY 2016 Base Plans:*** Continue advanced METOC infrastructure development for METOC decision support software applications and interfaces to tactical and strategic decision aids along with component and prototype efforts associated with acquiring environmental data. Continue development of an end-to-end methodology to collect, fuse, and integrate these data into Navy and DoD networks and command & control nodes. Continue development of support infrastructure for advanced global & regional METOC prediction systems. Begin the Dual Band (air surveillance) Radar design and development for the new weather radar processing and display software for CVN 78 class ships. ***FY 2016 OCO Plans:*** N/A					
Title: Littoral Battlespace Sensors - Unmanned Undersea Vehicle (LBS-UUV)	0.232	0.145	0.138	-	0.138
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Conducted Littoral Battlespace Sensing - Gliders (LBS-G) and Littoral Battlespace Sensors - Autonomous Undersea Vehicles (LBS-AUV) engineering design and feasibility studies. Developed system upgrades via ECPs, and corrected identified software and/or hardware deficiencies. Continued investigative efforts on enhanced AUV autonomy, Glider Operations Center (GOC) automation, communications improvements, and battery redesign. ***FY 2015 Plans:*** Conduct LBS-G and LBS-AUV engineering design and feasibility studies as required. Develop system upgrades via Engineering Change Proposals (ECPs), and correct any identified software and/or hardware deficiencies					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2345 / *Fleet METOC Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
as required. Continue efforts on enhanced AUV autonomy GOC automation, battery redesign, and others as directed. Complete communications enhancements investigation and some sub-elements of the GOC automation task (Batch File, Storm Mode, and Autonomous Abort Handling). ***FY 2016 Base Plans:*** Conduct LBS-G and LBS AUV engineering design studies as required. Develop system upgrades via ECPs and correct any identified software and/or hardware deficiencies as required. Continue efforts on AUV autonomy. Continue GOC automation efforts and battery redesign investigations. Begin investigating next generation propulsion technologies such as the Hybrid Thruster, battery chemistry, thermal engines, and universal buoyancy engines for potential system upgrades as directed. ***FY 2016 OCO Plans:*** N/A					
Title: Environmental Satellite Receiver Processor (ESRP)	0.302	0.240	0.290	-	0.290
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Continued to develop and test annual hardware and software upgrades to integrate new METOC Satellite Sensors available in the GOES and the POES. Continued integration of ESRP systems in support of JPSS. Overall program efforts included investigation of emerging technologies through study, development and associated testing for feasibility of program insertion. ***FY 2015 Plans:*** Continue to develop and test annual hardware and software upgrades to integrate new METOC Satellite Sensors available in the GOES and the POES. Continue integration of ESRP systems in support of JPSS, and European Meteorology Satellites (EUMETSAT). Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion. ***FY 2016 Base Plans:*** Continue to develop and test annual hardware and software upgrades to integrate new METOC Satellite Sensors available in the GOES and the POES. Continue integration of ESRP systems in support of JPSS, and European Meteorology Satellites (EUMETSAT). Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion. ***FY 2016 OCO Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2345 / *Fleet METOC Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A					
Accomplishments/Planned Programs Subtotals	2.542	1.224	3.379	-	3.379

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPN/4226: *Meteorological Equipment*	19.118	12.825	15.090	-	15.090	13.397	12.992	13.342	13.132	Continuing	Continuing
• RDTEN/0603207N/2341: *METOC Data Acquisition*	6.146	2.518	3.763	-	3.763	4.797	5.321	5.211	5.315	Continuing	Continuing
• RDTEN/0603207N/2342: *METOC Data Assimilation and MOD*	9.942	4.937	8.168	-	8.168	9.372	9.430	10.107	10.290	Continuing	Continuing
• RDTEN/0604218N/2346: *METOC Sensor Engineering*	1.373	0.940	1.136	-	1.136	1.233	1.244	1.253	1.280	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acquisition, management and contracting strategies are to support engineering and manufacturing development by providing funds to Naval Research Laboratories and miscellaneous contractors, with management oversight by the Program Executive Officer for Command, Control, Communications, Computers and Intelligence.

E. Performance Metrics

Goal: Develop and engineer equipment to acquire meteorological and oceanographic (METOC) data in order to improve the accuracy of global and regional scale Meteorological and Oceanographic forecast models.

Metric: Tasks will address no less than 75% of applicable capability gaps and requirements, as identified by Resource and Requirements Sponsor(s). As tasks relate to exploitation of fleet sensors for METOC data (Through-the-Sensor), no less than 80% of approved initiatives will have a cost, schedule, performance and transition risk analysis completed within the past 12 months.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2345 / *Fleet METOC Equipment*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
METOC Future Mission Capabilities	WR	Naval Research Laboratory : Monterey, CA	20.145	1.473	Nov 2013	0.709	Nov 2014	0.731	Nov 2015	-		0.731	Continuing	Continuing	Continuing
METOC Future Mission Capabilities	WR	SPAWAR System Centers : California, South Carolina	7.521	-		-		-		-		-	-	7.521	7.521
METOC Future Mission Capabilities	C/CPFF	RAYTHEON : Massachusetts	2.559	-		-		-		-		-	-	2.559	2.559
METOC Future Mission Capabilities	Various	Various : Various	18.623	-		-		-		-		-	-	18.623	18.623
METOC Future Mission Capabilities	C/CPFF	University of WA : Washington	0.590	-		-		-		-		-	Continuing	Continuing	Continuing
Littoral Battlespace Sensing - Gliders	C/CPIF	Teledyne Brown Engineering : Alabama	0.359	0.117	Mar 2014	0.073	Mar 2015	0.069	Mar 2016	-		0.069	Continuing	Continuing	Continuing
METOC Future Mission Capabilities	C/FP	SAIC : Virginia	1.020	0.335	Nov 2013	-		-		-		-	Continuing	Continuing	Continuing
Littoral Battlespace Sensing - Autonomous Undersea Vehicle	C/FP	Hydroid : Pocasset, MA	0.479	0.115	Feb 2014	0.072	Feb 2015	0.069	Feb 2016	-		0.069	Continuing	Continuing	Continuing
METOC ESRP	C/CPFF	RAYTHEON : Indianapolis	0.538	0.302	Feb 2014	0.240	Feb 2015	0.290	Feb 2016	-		0.290	Continuing	Continuing	Continuing
METOC Future Mission Capabilities	C/CPFF	OWENS : New Jersey	0.000	0.200	Jul 2014	0.130	Feb 2015	0.134	Feb 2016	-		0.134	-	0.464	-
METOC Future Mission Capabilities (DBR)	TBD	Unknown : Unknown	0.000	-		-		2.086	Nov 2015	-		2.086	-	2.086	-
		Subtotal	51.834	2.542		1.224		3.379		-		3.379	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604218N / *Air/Ocean Equipment Engineering*	Project (Number/Name) 2345 / *Fleet METOC Equipment*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
METOC Future Mission Capabilities	C/CPFF	SSA/CSC : MISC	1.312	-		-		-		-		-	-	1.312	-
Littoral Battlespace Sensing - Autonomous Undersea Vehicle	C/FP	SAIC : Virginia	0.617	-		-		-		-		-	-	0.617	-
Littoral Battlespace Sensing - Autonomous Undersea Vehicle	C/FP	SPAWAR System Centers : San Diego, CA	0.150	-		-		-		-		-	-	0.150	-
		Subtotal	2.079	-		-		-		-		-	-	2.079	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	WR	OPTEVFOR : Virginia	0.424	-		-		-		-		-	-	0.424	-
Littoral Battlespace Sensing - Unmanned Undersea Vehicle	WR	NSWC Carderock : Maryland	0.150	-		-		-		-		-	-	0.150	-
METMF R NEXGEN	C/FP	Smiths Detection : Rhode Island	0.090	-		-		-		-		-	-	0.090	-
		Subtotal	0.664	-		-		-		-		-	-	0.664	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	C/CPFF	SAIC : Virginia	0.400	-		-		-		-		-	-	0.400	0.400
		Subtotal	0.400	-		-		-		-		-	-	0.400	0.400

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604218N / *Air/Ocean Equipment Engineering*	Project (Number/Name) 2345 / *Fleet METOC Equipment*	

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	54.977	2.542		1.224		3.379		-		3.379	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2345 / *Fleet METOC Equipment*

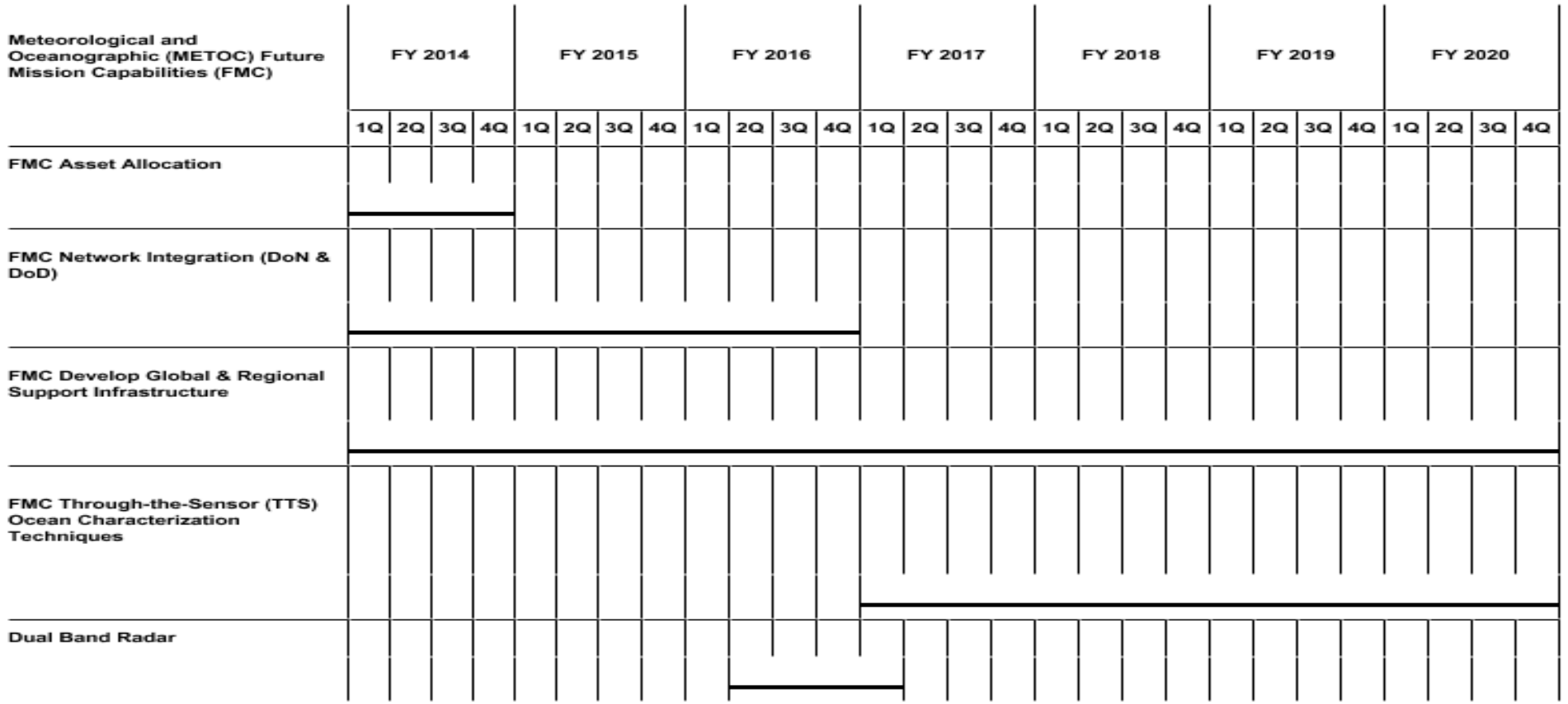

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2345 / *Fleet METOC Equipment*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Meteorological and Oceanographic (METOC) Future Mission Capabilities (FMC)				
FMC Asset Allocation:	1	2014	4	2014
FMC Network Integration (DoN & DoD):	1	2014	4	2016
FMC Develop Global & Regional Support Infrastructure:	1	2014	4	2020
FMC Through-the-Sensor (TTS) Ocean Characterization Techniques: FY17-20	1	2017	4	2020
DBR Design and Development:	2	2016	1	2017

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604218N / *Air/Ocean Equipment Engineering*	Project (Number/Name) 2346 / *METOC Sensor Engineering*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
2346: *METOC Sensor Engineering*	20.321	1.373	0.940	1.136	-	1.136	1.233	1.244	1.253	1.280	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the engineering and manufacturing development of specialized, high resolution instrumentation systems and measurement capabilities for obtaining near real-time, in-situ Meteorological and Oceanographic (METOC) data in hostile, remote, and denied areas. The project's objectives are to engineer near-term future mission sensing capabilities that are intended to survive the harsh littoral and deep-strike environments and also to meet demanding requirements for timeliness and accuracy. Engineering is performed within this project to ensure that air and safety certification for deployment from fleet aircraft or ships is met and that the proper data formats are engineered for electronic communications transmissions, human interface displays, and inputs to predictive models.

The major area of emphasis is the METOC Future Mission Capabilities (FMC) project.

FY 2016 request provides for the continued development of advanced sensor system support technologies and techniques for sensor deployment, data processing and performance metrics to optimize sensor performance and continue to develop infrastructure to acquire, process and distribute METOC data and products.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Meteorological and Oceanographic (METOC) Future Mission Capabilities (FMC)	1.373	0.940	1.136	-	1.136
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Continued system development and demonstration of METOC manned, unmanned and automated sensors (to include integration of environmental sensors into a larger environmental sensing strategy). Continued the development of advanced sensor system support technologies and techniques for sensor deployment, data processing and analysis to include performance metrics to optimize sensor performance. Assessed viability of sensors and subsystem sensors on unmanned and manned aircraft systems and autonomous undersea systems for collection of automated Meteorological and Oceanographic (METOC) data. Continued to develop infrastructure to acquire, process and distribute METOC data and products.					
FY 2015 Plans: Continue system development and demonstration of METOC manned, unmanned and automated sensors (to include integration of environmental sensors into a larger environmental sensing strategy). Continue the development of advanced sensor system support technologies and techniques for sensor deployment, data					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2346 / *METOC Sensor Engineering*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
processing and analysis to include performance metrics to optimize sensor performance. Continue to develop infrastructure to acquire, process and distribute METOC data and products. ***FY 2016 Base Plans:*** Continue development of METOC manned, unmanned and automated sensing technologies (to include integration of environmental sensors into a larger environmental sensing strategy). Continue the development of advanced sensor system support technologies and techniques for sensor deployment, data processing and analysis to include performance metrics to optimize sensor performance. Continue to develop infrastructure to acquire, process and distribute METOC data and products. Additionally, FY16 funding will assess new sensor capabilities. ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	1.373	0.940	1.136	-	1.136

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• RDTEN/0603207N/2341: *METOC DATA ACQUISITION*	6.146	2.518	3.763	-	3.763	4.797	5.321	5.211	5.315	Continuing	Continuing
• RDTEN/0603207N/2342: *METOC DATA ASSIMILATION AND MOD*	9.942	4.937	8.168	-	8.168	9.372	9.430	10.107	10.290	Continuing	Continuing
• RDTEN/0604218N/2345: *FLEET METOC EQUIPMENT*	2.542	1.224	3.379	-	3.379	0.923	1.356	1.939	1.980	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acquisition and contracting strategies are to support engineering and manufacturing development of specialized, high resolution instrumentation systems and measurement techniques for obtaining near real-time in-situ Meteorological and Oceanographic (METOC) data in denied or remote areas by providing funds to miscellaneous performers.

E. Performance Metrics

Goal: Develop and engineer unique sensors to acquire METOC data in order to improve the accuracy of global and regional scale meteorological and oceanographic forecast models.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2346 / *METOC Sensor Engineering*

Metric: Tasks will address no less than 75% of applicable capability gaps and requirements, as identified by Resource Sponsor and Type Commander(s). No less than 75% of sensor engineering initiatives will be informed by an Analysis of Alternatives or market study to assess the state of the technology.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2346 / *METOC Sensor Engineering*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	WR	Naval Research Laboratory : Monterey, CA	8.563	1.373	Nov 2013	0.640	Nov 2014	0.454	Nov 2015	-		0.454	Continuing	Continuing	Continuing
Product Development	Various	MISC : MISC	11.750	-		-		-		-		-	-	11.750	Continuing
Product Development	C/CPFF	University of Washington : Washington	0.000	-		-		0.113	Nov 2015	-		0.113	-	0.113	-
Product Development	WR	NSWC Carderock : Maryland	0.000	-		-		0.113	Nov 2015	-		0.113	-	0.113	-
Product Development	C/FP	SSC PAC : San diego, CA	0.000	-		0.300	Nov 2014	0.456	Nov 2015	-		0.456	-	0.756	-
		Subtotal	20.313	1.373		0.940		1.136		-		1.136	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Workforce	C/CPFF	Not Specified : Not Specified	0.008	-		-		-		-		-	-	0.008	0.008
		Subtotal	0.008	-		-		-		-		-	-	0.008	0.008

	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	20.321	1.373		0.940		1.136		-		1.136	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2346 / *METOC Sensor Engineering*

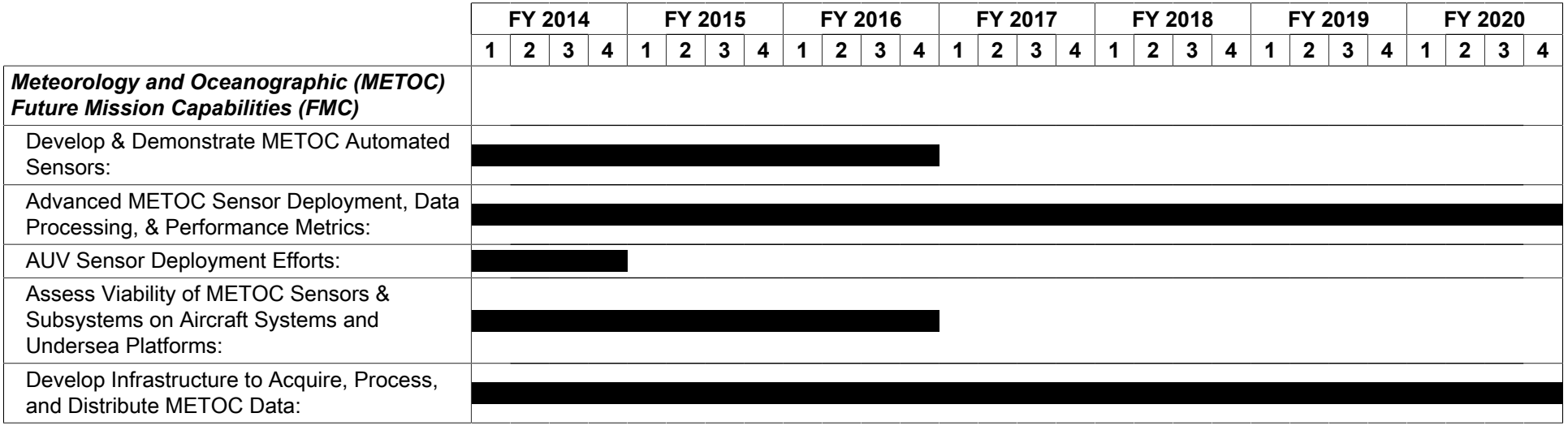

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604218N / *Air/Ocean Equipment Engineering*	**Project (Number/Name)** 2346 / *METOC Sensor Engineering*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Meteorology and Oceanographic (METOC) Future Mission Capabilities (FMC)				
Develop & Demonstrate METOC Automated Sensors:	1	2014	4	2016
Advanced METOC Sensor Deployment, Data Processing, & Performance Metrics:	1	2014	4	2020
AUV Sensor Deployment Efforts:	1	2014	4	2014
Assess Viability of METOC Sensors & Subsystems on Aircraft Systems and Undersea Platforms:	1	2014	4	2016
Develop Infrastructure to Acquire, Process, and Distribute METOC Data:	1	2014	4	2020