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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy										Date: March 2014		
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 0603658N / Cooperative Engagement							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	383.709	50.058	53.572	43.578	-	43.578	73.429	63.082	75.334	76.764	Continuing	Continuing
2039: COOP Engagement	383.709	50.058	53.572	43.578	-	43.578	73.429	63.082	75.334	76.764	Continuing	Continuing
MDAP/MAIS Code: 582												
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
Cooperative Engagement Capability (CEC) significantly improves Battle Force Anti-Air Warfare (AAW) capability by coordinating all Battle Force AAW sensors into a single, real-time, composite track picture to support integrated fire control. CEC distributes sensor data from each USMC Command Control Unit, USA Aerostat, US Navy Ship, and US Navy Aircraft, or cooperating unit (CU), to all other CUs in the battle force through a real-time, line of sight, high data rate sensor and engagement data distribution network. CEC is highly resistant to jamming and provides accurate gridlocking between CUs. Each CU independently employs high capacity, parallel processing and advanced algorithms to combine all distributed sensor data into a fire control quality track picture which is the same for all CUs. CEC data is presented as a superset of the best AAW sensor capabilities from each CU, all of which are integrated into a single input to each CU's combat weapons system. CEC significantly improves our Battle Force defense in depth, including both local area and ship defense capabilities against current and future AAW threats. Moreover, CEC provides critical connectivity and integration of over-land air defense systems capable of countering emerging air threats, including land attack cruise missiles, in a complex littoral environment.												
Each military Service funds CEC development for their combat systems. The CEC Program Office oversees CEC development for all services.												
CEC consists of the Data Distribution System (DDS), the Cooperative Engagement Processor (CEP), and interface with Combat Systems and sensors. The DDS encodes and distributes own-ship sensor and engagement data and is a high capacity, jam resistant, directive system providing a precision gridlocking and high throughput of data. The CEP is a high capacity distributed processor that processes force levels of data in near real-time. The data is passed to the ship's combat system as high quality data for which the ship can cue its onboard sensors or use the data to engage targets without actually tracking them.												
The Navy implemented a Signal Data Processor (SDP) approach to modify the current equipment to meet reduced size, weight, cost, power and cooling objectives. This SDP approach also supports continuity for interoperability improvements and program protection, as well as supporting open architecture initiatives, and comms independence. The SDP hardware complies with Category 3 Open Architecture Computing Environment (OACE) standards. The SDP-S is being fielded fleet-wide to all US Navy, USMC, US Army, and FMS CEC units.												
A family of antennas approach will be used to satisfy CEC requirements with lower life cycle costs (procurement, installation, and maintenance) and reduced weight (on mast and below deck). These antennas enable future capability as well as providing a solution extensible to additional platforms. This effort for development and production of Common Array Block (CAB) antennas was competitively awarded in late FY2013.												

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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy</i> / BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603658N / <i>Cooperative Engagement</i>
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In support of Interoperability, CEC will continue to work collaboratively with other Combat Systems programs (AWS, E-2C, E-2D, SSDS, CDLMS, C2P, and SGS/AC) to develop the software and implement design corrections and system changes. CEC will analyze the interactions of interoperability issues and impacts and provide collaboration for development of CEC and other system changes, develop the long term solutions, including the engineering process to validate small parts of developmental software ideas, and utilize M&S to validate design approaches in the systems engineering realm.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	56.512	69.312	66.001	-	66.001
Current President's Budget	50.058	53.572	43.578	-	43.578
Total Adjustments	-6.454	-15.740	-22.423	-	-22.423
• Congressional General Reductions	-	-0.071			
• Congressional Directed Reductions	-	-15.669			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.010	-			
• Program Adjustments	-	-	-21.039	-	-21.039
• Rate/Misc Adjustments	-	-	-1.384	-	-1.384
• Congressional General Reductions Adjustments	-5.444	-	-	-	-

Change Summary Explanation

Reduced FY13 funding for sequestration, SBIR assessment and congressional rescissions. Reduced FY15 funding due to Department decision to reduce contracted services and in order to properly phase program requirements with expenditures.

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Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603658N / Cooperative Engagement				Project (Number/Name) 2039 / COOP Engagement			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
2039: COOP Engagement	383.709	50.058	53.572	43.578	-	43.578	73.429	63.082	75.334	76.764	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Cooperative Engagement Capability (CEC) significantly improves Battle Force Anti-Air Warfare (AAW) capability by coordinating all Battle Force AAW sensors into a single, real-time, composite track picture to support integrated fire control. CEC distributes sensor data from each USMC Command Control Unit, USA Aerostat, US Navy Ship, and US Navy Aircraft, or cooperating unit (CU), to all other CUs in the battle force through a real-time, line of sight, high data rate sensor and engagement data distribution network. CEC is highly resistant to jamming and provides accurate gridlocking between CUs. Each CU independently employs high capacity, parallel processing and advanced algorithms to combine all distributed sensor data into a fire control quality track picture which is the same for all CUs. CEC data is presented as a superset of the best AAW sensor capabilities from each CU, all of which are integrated into a single input to each CU's combat weapons system. CEC significantly improves our Battle Force defense in depth, including both local area and ship defense capabilities against current and future AAW threats. Moreover, CEC provides critical connectivity and integration of over-land air defense systems capable of countering emerging air threats, including land attack cruise missiles, in a complex littoral environment.

Each military Service funds CEC development for their combat systems. The CEC Program Office oversees CEC development for all services.

CEC consists of the Data Distribution System (DDS), the Cooperative Engagement Processor (CEP), and interface with Combat Systems and sensors. The DDS encodes and distributes own-ship sensor and engagement data and is a high capacity, jam resistant, directive system providing a precision gridlocking and high throughput of data. The CEP is a high capacity distributed processor that processes force levels of data in near real-time. The data is passed to the ship's combat system as high quality data for which the ship can cue its onboard sensors or use the data to engage targets without actually tracking them.

The Navy implemented a Signal Data Processor (SDP) approach to modify the current equipment to meet reduced size, weight, cost, power and cooling objectives. This SDP approach also supports continuity for interoperability improvements and program protection, as well as supporting open architecture initiatives, and comms independence. The SDP hardware complies with Category 3 Open Architecture Computing Environment (OACE) standards. The SDP-S is being fielded fleet-wide to all US Navy, USMC, US Army, and FMS CEC units.

A family of antennas approach will be used to satisfy CEC requirements with lower life cycle costs (procurement, installation, and maintenance) and reduced weight (on mast and below deck). These antennas enable future capability as well as providing a solution extensible to additional platforms. This effort for development and production of Common Array Block (CAB) antennas was competitively awarded in late FY2013.

In support of Interoperability, CEC will continue to work collaboratively with other Combat Systems programs (AWS, E-2C, E-2D, SSDS, CDLMS, C2P, and SGS/AC) to develop the software and implement design corrections and system changes. CEC will analyze the interactions of interoperability issues and impacts and

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provide collaboration for development of CEC and other system changes. Develop the long term solutions, including the engineering process to validate small parts of developmental software ideas, and utilize M&S to validate design approaches in the systems engineering realm.					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2013	FY 2014	FY 2015
Title: E-2D Articles: FY 2013 Accomplishments: Developed new software load to fix problems identified in operational test. FY 2014 Plans: Debug and develop corrections to software issues found during OT-IIIF. Corrections will address Track File concurrence and Dual Tracks. FY 2015 Plans: N/A			1.000	3.000	-
			-	-	-
Title: B/L 2.1 INTEGRATION AND FOT&E TESTING Articles: FY 2013 Accomplishments: Supported demonstration of NIFC-CA, including live fire event at White Sands Missile Range. Completed Operational Testing (OT-IIIF) of AN/USG-3B with E-2D. Commenced Developmental Testing (DT-IIIE) of AN/USG-2B with Aegis ACB12. Supported testing of Mid-Term Interoperability enterprise upgrade. FY 2014 Plans: Continue Developmental Testing (DT-IIIE) of AN/USG-2B with Aegis ACB12. Support testing and certification of mid-term interoperability enterprise upgrade. FY 2015 Plans: Support development testing of NIFC-CA. Complete Developmental Testing (DT-IIIE) of AN/USG-2B with Aegis ACB12. Complete Phase 2 of Operational Testing (OT-IIIG2) of AN/USG-2B with Aegis ACB12. Continue Developmental Testing (DT-IIIF) of AN/USG-2B with CVN78. Commence Developmental Testing of AN/USG-2B with DDG 1000.			5.195	4.700	7.300
			-	-	-
Title: NIFC-CA Articles: FY 2013 Accomplishments: Supported NIFC-CA FTS SoS SE leading to FY2013 live fire testing at WSMR and At Sea. Provided CEC test support, model updates, post test analysis, debug and fix leading to deployable CEC baseline with NIFC-CA capability. FY 2014 Plans:			2.313	-	-
			-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2013	FY 2014	FY 2015
N/A					
FY 2015 Plans: N/A					
Title: SYSTEM IMPROVEMENTS FY 2013 Accomplishments: Continued CEC system improvements with large network development, and established Information Assurance (IA), program protection and developed fixes for the Fire Control Loop Improvement Project (FCLIP). FY 2014 Plans: Continue system improvements at Land Based Test Sites (LBTS) to accurately reflect CEC equipment in the fleet, monitor and improve IA posture and program protection. Support Joint Track Management Capability (JTMC) development planning. FY 2015 Plans: Continue system improvements at LBTS to accurately reflect CEC equipment in the fleet, ACB16 adaptive layer, program protection, and IA.			15.078 <i>Articles:</i> -	13.679 -	9.448 -
Title: NETWORK ENABLED ELECTRONIC DEFENSE SYSTEM (NEEDS) FY 2013 Accomplishments: Commenced concept exploration, technology assessment, system trade studies, event data collection for NEEDS capability to respond to emergent operational needs to provide improved surveillance, tracking , ID, and engagement capabilities. Commenced development of NEEDS requirements, algorithms, Modeling & Simulation (M&S) capability to model both threats and NEEDS, and supported for Technical Interchange Meetings (TIM). FY 2014 Plans: Continue development of NEEDS requirements, algorithms, and M&S capabilities to respond to emergent operational needs to provide improved surveillance, tracking, ID, and engagement capabilities. Commence analysis, definition and development of NEEDS capability, system architecture and design, external interface requirements, development of prototype implementations, evaluation of real time processing load, development of WASP capabilities, development of recorded data playback capability, and support for TIMs, Interface Control Working Groups (ICWG) and In-Process Reviews (IPR). FY 2015 Plans: Continue development of NEEDS requirements, algorithms, and M&S capabilities to respond to emergent operational needs to provide improved surveillance, tracking, ID, and engagement capabilities. Continue analysis, definition and development of NEEDS capability, system architecture and design, external interface requirements, development of prototype implementations,			6.160 <i>Articles:</i> -	11.137 -	7.331 -

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2013	FY 2014	FY 2015
evaluation of real time processing load, development of WASP capabilities, development of recorded data playback capability, and support for TIMs, Interface Control Working Groups (ICWG) and In-Process Reviews (IPR). Conduct field events to assess utility of prototypical software.					
Title: FIELD ACTIVITIES			8.300	8.229	6.324
Articles:			-	-	-
FY 2013 Accomplishments: Continued field activity support of CEC development and fielding efforts (i.e. SE/IA, Technical Direction Agent, In-Service Engineering, Integrated Logistics Support Planning) and program management support.					
FY 2014 Plans: Continue field activity support of CEC development and fielding efforts (i.e. SE/IA, Technical Direction Agent, In-Service Engineering, Integrated Logistics Support Planning) and program management support.					
FY 2015 Plans: Continue field activity support of CEC development and fielding efforts (i.e. SE/IA, Technical Direction Agent, In-Service Engineering, Integrated Logistics Support Planning) and program management support.					
Title: COMMON ARRAY BLOCK (CAB) ANTENNA			6.500	7.277	9.275
Articles:			-	-	-
FY 2013 Accomplishments: Continued development of the CAB-S antenna. Awarded competitive contract to design and develop the CAB-S antenna.					
FY 2014 Plans: Continue development of the CAB-S antenna.					
FY 2015 Plans: Continue development of the CAB-S antenna.					
Title: LINK 16/INTEROPERABILITY			5.012	2.800	0.800
Articles:			-	-	-
FY 2013 Accomplishments: Test, debug, certify and field the Accelerated Mid-term Interoperability Improvement Project (AMIIP) enterprise upgrade for Aegis ships.					
FY 2014 Plans:					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2013	FY 2014	FY 2015
Continue to field AMIIP upgrade on Aegis ships. Test, debug, certify and field the AMIIP enterprise upgrade for SSDS ships and E-2C aircraft. Commence development of far term interoperability enterprise upgrade.												
FY 2015 Plans: Continue development and commence testing of far term interoperability enterprise upgrade.												
Title: AIR AND MISSILE DEFENSE RADAR (AMDR)										0.500	2.750	3.100
Articles:										-	-	-
FY 2013 Accomplishments: Commenced development of CEC/AMDR Interface Requirements Specification (IRS), AMDR/CEP Interface Design Description (IDD) outline; identified and resolved AMDR/CEC integration engineering issues, supported Technical Interchange Meetings (TIM), Interface Control Working Groups (ICWG), and CEC/AMDR In-Process Reviews (IPR) #2 Combat System Integration Working Group (CSIWG), Combat System Interface Support Equipment Working Group (CSISEWG).												
FY 2014 Plans: Continue development of updated IRS and commence development of full CEC/AMDR IDD, design of CEC adaptive layer code, initial development of CEC Wrap Around Simulator Processor (WASP) capability, support TIMs, ICWGs, CEC/AMDR IPR #3 CSIWG, CSISEWG, and AMDR Software Preliminary Design Review.												
FY 2015 Plans: Continue development of updated IRS and continue development of full CEC/AMDR IDD, design of CEC adaptive layer code, continued development of CEC Wrap Around Simulator Processor (WASP) capability, support TIMs, ICWGs, CEC/AMDR IPR #4 CSIWG, CSISEWG, and AMDR Software Critical Design Review.												
Accomplishments/Planned Programs Subtotals										50.058	53.572	43.578
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
• SCN: Navy, SCN	30.272	5.600	11.400	-	11.400	18.900	18.500	18.200	12.250	44.457	425.738	
• APN/0204152N: Navy, APN	14.892	15.175	15.463	-	15.463	18.909	25.690	26.179	20.007	-	326.344	
• OPN/2606: CEC	20.335	29.592	33.939	-	33.939	25.898	30.886	31.448	32.126	-	912.707	
• OPN/0900: DDG Mod	11.107	-	-	-	-	-	-	-	-	-	62.918	
• RDT&E/0206313M: USMC	2.390	4.680	1.570	-	1.570	1.180	0.571	0.299	0.678	-	24.798	
• RDT&E,A/0102419A: JLENS	2.370	0.475	-	-	-	-	-	-	-	-	42.317	
• O&M,N/0206626M: USMC	0.989	3.629	1.051	-	1.051	0.994	1.263	1.230	1.272	-	11.391	
• OPN/0206313M: USMC	-	1.843	-	-	-	-	-	-	-	-	1.843	

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C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
Remarks											
D. Acquisition Strategy											
CEC Acquisition Strategy (AS) was approved by OSD (AT&L) on 19 January 2010. CEC Acquisition Plan (AP) was approved September 2013.											
Contracts:											
Common Array Block (CAB) antenna - New Contract was awarded 4Qtr FY2013.											
CEC Design Agent/Engineering Services (DA/ES) follow-on sole source contract awarded 1stQtr FY2014.											
CEC Production - New Contract will be competitively awarded in FY2014.											
CEC DA/ES competitive contract will be awarded 2Qtr FY2016.											
E. Performance Metrics											
- Complete the adaptive layer development for the E-2D aircraft. Provide technical support for installation and integration in the Northrop Grumman Systems Integration Laboratory, on board the test aircraft and support the Developmental testing. - Continue AEGIS Advance Capability Builds CEC integration and demonstration efforts. - Continue Naval Integrated Fire Control - Counter Air (NIFC-CA) CEC integration and demonstration efforts. - Continue E-2D Advanced Hawkeye aircraft CEC integration efforts. - Continue Crypto Modernization Tech Refresh efforts. - Awarded contract to develop Common Array Block (CAB) in late FY2013.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Navy												Date: March 2014			
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603658N / Cooperative Engagement				Project (Number/Name) 2039 / COOP Engagement					
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/USG-2/3 Design Agent/Engineering Services	C/CPFF	Raytheon : St. Petersburg, FL	85.029	13.556	Nov 2012	8.853	Nov 2013	6.105	Nov 2014	-		6.105	Continuing	Continuing	Continuing
TDA	C/CPFF	JHU/APL : Laurel, MD	48.548	9.637	Nov 2012	9.114	Nov 2013	6.016	Nov 2014	-		6.016	Continuing	Continuing	Continuing
SI/DA	C/CPAF	General Dynamics : Fairfax, VA	23.979	-		-		-		-		-	-	23.979	-
SI/DA	C/CPAF	Award Fees : Not Specified	2.903	-		-		-		-		-	-	2.903	-
DDG 1000	C/CPAF	Raytheon : Massachusetts	10.983	-		-		-		-		-	-	10.983	-
DDG 1000	C/CPAF	Award Fees : Not Specified	0.447	-		-		-		-		-	-	0.447	-
NIFC-CA Integration	TBD	Various : Not Specified	37.029	2.313	Dec 2012	-		-		-		-	-	39.342	-
In-Service Engineering Activity	WR	NSWC : Port Hueneme, CA	1.107	1.399	Nov 2012	1.584	Nov 2013	0.890	Nov 2014	-		0.890	Continuing	Continuing	Continuing
Software Support Activity/ SEIA	WR	NSWC : Dahlgren, VA	11.787	2.498	Nov 2012	2.857	Nov 2013	1.161	Nov 2014	-		1.161	Continuing	Continuing	Continuing
Production Engineering Activity	WR	NSWC : Crane, IN	5.694	-		-		-		-		-	Continuing	Continuing	Continuing
JTRS	TBD	Various : Not Specified	8.500	-		-		-		-		-	-	8.500	-
Various	TBD	Miscellaneous : Not Specified	29.133	-		-		1.200	Nov 2014	-		1.200	-	30.333	-
NAVSSI	WR	SPAWAR : San Diego, CA	0.368	-		-		-		-		-	-	0.368	-
Certification	MIPR	NSA : Fort Meade, MD	1.100	0.100	Nov 2012	0.100	Nov 2013	-		-		-	Continuing	Continuing	Continuing
Certification	WR	SPAWAR : Charleston, SC	0.930	-		-		-		-		-	-	0.930	-
Joint Exercises	WR	Various : Not Specified	3.744	-		-		-		-		-	-	3.744	-

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Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
LBTS Testing	WR	CDSA Damneck : Virginia Beach, VA	5.570	0.500	Nov 2012	0.500	Nov 2013	0.500	Nov 2014	-		0.500	Continuing	Continuing	Continuing
LBTS Testing	WR	SCSC : Wallops Island, VA	4.630	0.700	Nov 2012	0.700	Nov 2013	0.700	Nov 2014	-		0.700	Continuing	Continuing	Continuing
E-2D Integration	TBD	Various : Not Specified	40.258	1.000	Nov 2012	3.000	Nov 2013	-		-		-	Continuing	Continuing	Continuing
MSI/NCCT	MIPR	Wright Patterson AFB : Dayton, OH	1.228	-		-		-		-		-	-	1.228	-
Common Array Block Development	C/CPFF	Various : Not Specified	5.400	6.500	Sep 2013	7.277	Jan 2014	9.275	Jan 2015	-		9.275	Continuing	Continuing	Continuing
NEEDS	C/CPFF	Various : Not Specified	0.000	6.160	Dec 2012	11.137	Dec 2013	7.331	Dec 2014	-		7.331	Continuing	Continuing	Continuing
AMDR	C/CPFF	Various : Not Specified	0.000	0.500	Dec 2012	2.750	Dec 2013	3.100	Dec 2014	-		3.100	Continuing	Continuing	Continuing
JTMC	C/CPFF	Raytheon : St. Petersburg	0.000	-		1.000	Dec 2013	-		-		-	-	1.000	-
Subtotal			328.367	44.863		48.872		36.278		-		36.278	-	-	-
Remarks															
Explanations for the use of "WR, MP, and Reqn" in the Contract method & type" column are as follows: - When using "MIPR", these documents are issued to DOD activities that are outside of the Department of the Navy. - When using "Reqn" for Wallops Island, this document is used because this is the only document we can provide to the activity to accomplish taskings for the CEC program. - When using "WR", these documents are sent to Navy activities who obligate funding on their vehicles to accomplish tasking for CEC. These activities are the only ones who can accomplish these tasks for the program. - E-2D Integration/NIFC-CA "Various/TBDs" are for classified programs and several document types.															
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test/ACB Support	C/CPFF	Raytheon : St. Petersburg, FL	2.897	0.300	Nov 2012	0.271	Nov 2013	0.630	Nov 2014	-		0.630	Continuing	Continuing	Continuing
Test/ACB Support	C/CPFF	JHU/APL : Laurel, MD	0.459	0.300	Nov 2012	0.271	Nov 2013	0.630	Nov 2014	-		0.630	Continuing	Continuing	Continuing

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Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	WR	NRL : Washington, DC	0.313	-		-		-		-		-	-	0.313	-
Test/ACB Support	WR	NSWC : Port Hueneme, CA	17.044	1.836	Nov 2012	1.661	Nov 2013	2.050	Nov 2014	-		2.050	Continuing	Continuing	Continuing
Air Operations Test Support	WR	NAVAIR (PMA207) : Patuxent River, MD	8.161	0.250	Nov 2012	0.226	Nov 2013	0.525	Nov 2014	-		0.525	Continuing	Continuing	Continuing
Test Data Reduction Analysis	WR	NWAS : Corona, CA	11.121	1.684	Nov 2012	1.524	Nov 2013	1.732	Nov 2014	-		1.732	Continuing	Continuing	Continuing
Test Support	WR	COMOPTEVFOR : Norfolk, VA	8.777	0.669	Nov 2012	0.605	Nov 2013	1.405	Nov 2014	-		1.405	Continuing	Continuing	Continuing
Test/ACB Support	WR	NSWC : Dahlgren, VA	1.140	0.156	Nov 2012	0.142	Nov 2013	0.328	Nov 2014	-		0.328	Continuing	Continuing	Continuing
Test/ACB Support	C/CPFF	TBD : Not Specified	0.000	-		-		-		-		-	-	-	-
Subtotal			49.912	5.195		4.700		7.300		-		7.300	-	-	-
Remarks															
Explanation for the use of "WR" in the "Contract method & type" column are as follows:															
When using "WR", these documents are sent to Navy activities who obligate funding on their vehicles to accomplish tasking for CEC. These activities are the only ones who can accomplish these tasks for the program.															
Test support also includes the following funding for ACB integration support: FY12 - \$1.0M FY13 - \$3.0M FY14 - \$3.0M															
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/FFP	Booz Allen & Hamilton : Washington, DC	5.070	-		-		-		-		-	-	5.070	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Navy													Date: March 2014		
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603658N / Cooperative Engagement				Project (Number/Name) 2039 / COOP Engagement					
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/FFP	Tech Marine Business : Washington, DC	0.360	-		-		-		-		-	-	0.360	-
Subtotal			5.430	-		-		-		-		-	-	5.430	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			383.709	50.058		53.572		43.578		-		43.578	-	-	-
Remarks															

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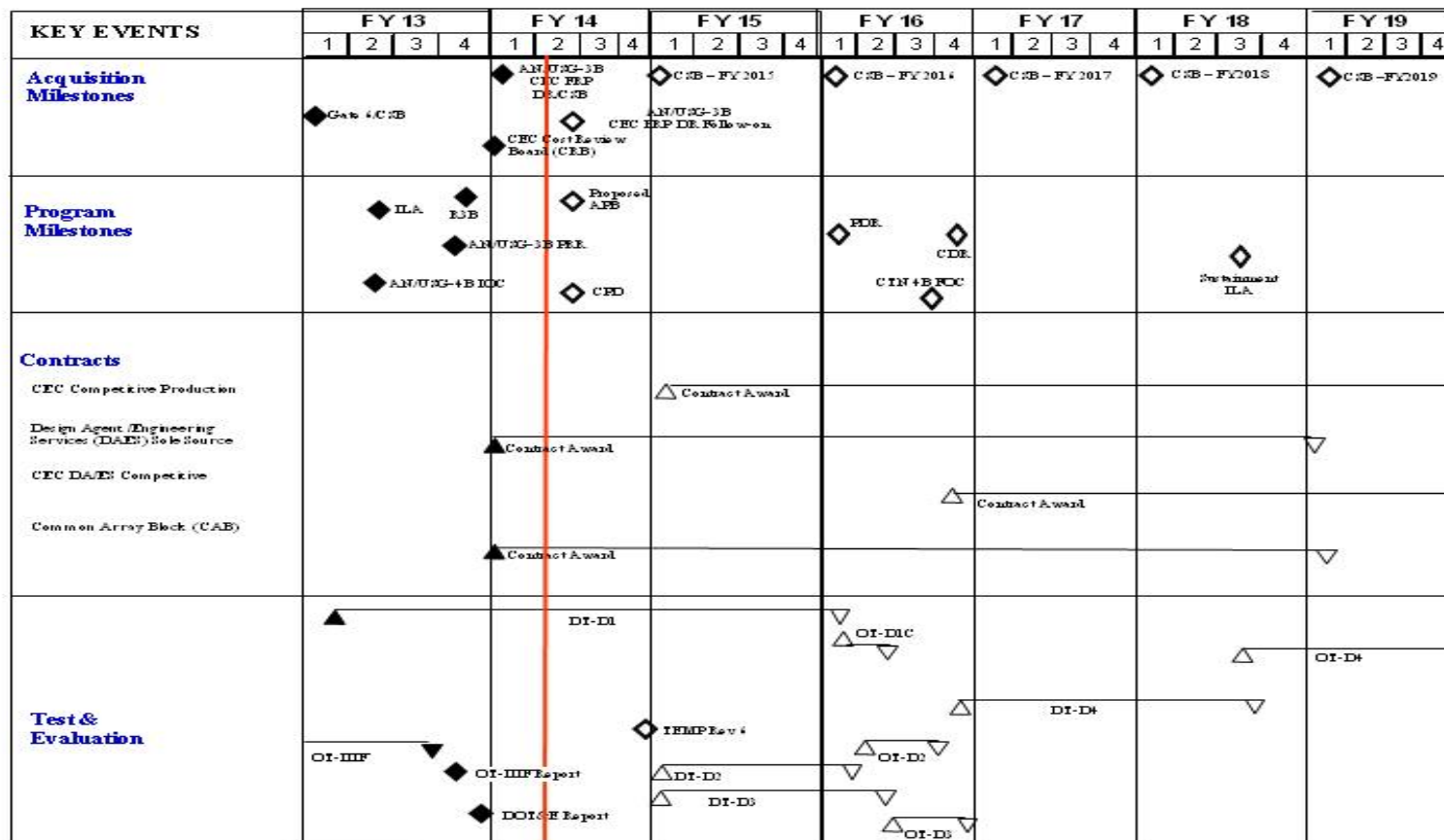
Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy

Date: March 2014

Appropriation/Budget Activity
1319 / 4

R-1 Program Element (Number/Name)
PE 0603658N / Cooperative Engagement

Project (Number/Name)
2039 / COOP Engagement



Acronym List

AFB: Acquisition Program Baseline
 AN/USG-2: CEC shipboard designation
 AN/USG-3: CEC antenna designation
 CAB: Common Array Block
 CDE: Critical Design Review
 CEC: Cooperative Engagement Capability
 CEC: Capabilities Production Document
 CEB: Cost Review Board
 CCB: Configuration Steering Board
 DOISE: Director of Operational Test and Evaluation
 DE: Design Review
 DI/OI: Development
 IOT: Initial Operational Test
 IOC: Full Operational Capability
 FEP: Full Rate Production
 ILA: Independent Logistics Assessment
 IOC: Initial Operational Capability
 NIRC: Naval Integrated Fire Control - Common Air
 PDE: Preliminary Design Review
 PEE: Production Readiness Review
 ESB: Esports Equipment Review Board
 IEMP: Test & Evaluation Master Plan

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Navy			Date: March 2014
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603658N / <i>Cooperative Engagement</i>	Project (Number/Name) 2039 / <i>COOP Engagement</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2039				
Gate 6/CSB	1	2013	1	2013
AN/USG-3B CEC FRP DR/CSB	1	2014	1	2014
AN/USG-3B CEC FRP DR Follow-on	2	2014	2	2014
CEC Cost Review Board (CRB)	1	2014	1	2014
CSB - FY2015	1	2015	1	2015
CSB - FY2016	1	2016	1	2016
CSB - FY2017	1	2017	1	2017
CSB - FY2018	1	2018	1	2018
CSB - FY2019	1	2019	1	2019
ILA	2	2013	2	2013
R3B	4	2013	4	2013
AN/USG-3B PRR	4	2013	4	2013
AN/USG-4B IOC	2	2013	2	2013
Proposed APB	2	2014	2	2014
CPD	2	2014	2	2014
PDR	1	2016	1	2016
CDR	4	2016	4	2016
CTN 4B FOC	3	2016	3	2016
Sustainment ILA	3	2018	3	2018
CEC Competitive Production Contract	1	2015	4	2019
Design Agent/Engineering Services (DA/ES) Sole Source Contract	1	2014	1	2018
CEC DA/ES Competitive Contract	4	2016	4	2019

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Navy			Date: March 2014		
Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603658N / Cooperative Engagement		Project (Number/Name) 2039 / COOP Engagement	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Common Array Block (CAB) Contract		1	2014	1	2019
DT-D1		1	2013	1	2016
OT-IIIF		1	2013	3	2013
OT-IIIF Report		3	2013	3	2013
DOT&E Report		4	2013	4	2013
TEMP Rev 6		4	2014	4	2014
DT-D2		1	2015	1	2016
DT-D3		1	2015	2	2016
OT-D1C		1	2016	2	2016
OT-D2		2	2016	3	2016
OT-D3		2	2016	4	2016
DT-D4		4	2016	3	2018
OT-D4		3	2018	4	2019