Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy											Date: February 2016	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0607658N *I (U)Cooperative Engagement Capability*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	601.250	0.000	0.000	84.501	-	84.501	88.945	96.246	92.749	94.273	Continuing	Continuing
2039: *COOP Engagement*	601.250	0.000	0.000	84.501	-	84.501	88.945	96.246	92.749	94.273	Continuing	Continuing
Program MDAP/MAIS Code: 582												

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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy	Date: February 2016
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607658N *I (U)Cooperative Engagement Capability*

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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	84.501	-	84.501
Total Adjustments	0.000	0.000	84.501	-	84.501
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	85.704	-	85.704
• Rate/Misc Adjustments	0.000	0.000	-1.203	-	-1.203

Change Summary Explanation

FY 2017 funding increased by $89.275 due to the realignment from Program Element 0603658N to Program Element 0607658N.

FY 2017 decrease in Cooperative Engagement Capability by $3.57M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

FY 2017 funding is decreased by $1.20M for Rate/Misc Reductions.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0607658N / *(U)Cooperative Engagement Capability*	Project (Number/Name) 2039 / *COOP Engagement*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2039: *COOP Engagement*	601.250	0.000	0.000	84.501	-	84.501	88.945	96.246	92.749	94.273	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: E-2D	0.000	0.000	2.800	0.000	2.800
Articles:	-	-	-	-	-
FY 2015 Accomplishments: N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** Continue E-2D CEC AMIIP and NIFC-CA Enhancements systems engineering and software development efforts, and support E-2D CEC DSSC 3 FQT, IV&V, and DT flight testing in conjunction with E-2D DSSC 3 software development and test. Continue systems engineering efforts related to introduction of SDP-S -005 on E-2D. ***FY 2017 OCO Plans:*** N/A					
Title: B/L 2.1 INTEGRATION AND FOT&E TESTING	0.000	0.000	9.000	0.000	9.000
Articles:	-	-	-	-	-
FY 2015 Accomplishments: N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** Continue support of NIFC-CA testing. Complete Developmental Test (DT-D2) of AN/USG-2B with CVN 78. Continue Developmental Test (DT-D3) of AN/USG-2B with DDG 1000. Commence Operational Test (OT-D2) of AN/USG-2B with CVN 78. ***FY 2017 OCO Plans:*** N/A					
Title: SYSTEM IMPROVEMENTS	0.000	0.000	20.901	0.000	20.901

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Articles:	-	-	-	-	-
FY 2015 Accomplishments: N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** Continue robust development and integration efforts with ACB 16 combat system by completing CEC ACB 16 Critical Design Review (CDR) and delivering design for continued developmental/integration testing. Ramp up integration efforts for CEC with the CVN 78 combat system, including SSDS and the Dual Band Radar (DBR) and also ramp up integration efforts with the DDG 1000 combat system with the TSCE combat system and the Multi-Function Radar (MFR). The integration of the DBR and MFR are first of their kind and require significant integration work with a radar system that is different than any previously used by CEC. Moreover, much of the DBR and MFR radar integration efforts must be accomplished on the actual warships due to very limited availability of suitable radar assets at the Land Based Test Sites. Update CEC element certification on all platforms whenever a new feature is put into the CEC baseline. This involves testing to garner evidence, analyzing the results and then obtaining permission for the CEC element certification panel and then from the combat system certification panel(s) to field the update. This is done for seven versions of Aegis (6.1, 6.3, 7.1.3, 7.1.R, 8.1, 9A, and 9C.) Continue CAB antenna integration efforts. ***FY 2017 OCO Plans:*** N/A					
Title: NETWORK ENABLED ELECTRONIC DEFENSE SYSTEM (NEEDS)	0.000	0.000	6.600	0.000	6.600
Articles:	-	-	-	-	-
FY 2015 Accomplishments: N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Begin developmental testing at Land Based Test Sites (LBTS) and while resolving trouble reports begin robust planning for engineering software load for temporary fielding during suitable developmental forum (Trident Warrior, Northern Edge etc.). Conduct Test Readiness Review (TRR). ***FY 2017 OCO Plans:*** N/A					
Title: FIELD ACTIVITIES ***Articles:*** ***FY 2015 Accomplishments:*** N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** Continue field activity support of CEC development and fielding efforts (including SE/IA, Technical Direction Agent, In-Service Engineering, Integrated Logistics Support planning) and program management support. Facilitate fielding of systems improvements and maintenance efforts (CAB, Airways Database, Master Ship List updates, etc.). ***FY 2017 OCO Plans:*** N/A	0.000 -	0.000 -	8.500 -	0.000 -	8.500 -
Title: COMMON ARRAY BLOCK (CAB) ANTENNA ***Articles:*** ***FY 2015 Accomplishments:*** N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** Conduct Pre-Production Readiness Review and begin system qualification functional and environmental testing. Begin initial fabrication of Pre-Production Antenna systems. ***FY 2017 OCO Plans:***	0.000 -	0.000 -	10.200 -	0.000 -	10.200 -

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A					
Title: AIR AND MISSILE DEFENSE RADAR (AMDR) ***Articles:*** ***FY 2015 Accomplishments:*** N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** Integrate CEC AMDR Adaptive Layer with Aegis Combat System Interface Support Equipment (CS ISE) and AMDR. Install and Check Out AMDR Adaptive Layer Stand Alone CEP (SACEP), remote SACEP, and Wrap Around Simulation Program (WASP) at the Advanced Radar Detection Laboratory (ARDEL) at the Pacific Missile Range Facility (PMRF) in support of live AMDR/CS testing. Participate in the Combat System Integration & Test (CIT) 1 at Naval Systems Computing Center (NSCC). Participate in the CIT-2 at ARDEL. Mature CEC AMDR Adaptive Layer based on findings from CIT-1 and 2. Begin development of the DDG-Flt III AMDR Adaptive Layer with additional functionality beyond what is developed to support the Early Integration Risk Reduction Effort. ***FY 2017 OCO Plans:*** N/A	0.000 -	0.000 -	9.500 -	0.000 -	9.500 -
Title: NAVAL INTEGRATED FIRE CONTROL-COUNTER AIR (NIFC-CA) ***Articles:*** ***FY 2015 Accomplishments:*** N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** Continue development of NIFC CA Increment 2 CEC software with Wrap Around Simulation Program (WASP) updates, and prototyping of advanced kernel and adaptive layer functions. Conduct Preliminary Design Review (PDR). ***FY 2017 OCO Plans:***	0.000 -	0.000 -	5.700 -	0.000 -	5.700 -

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A					
Title: FIRE CONTROL LOOP IMPROVEMENT INITIATIVE (FCLIP) PHASE 2 ***Articles:*** ***FY 2015 Accomplishments:*** N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** Continue development efforts for SSDS Combat System updates, SPQ-9B and CIWS sensor integration and begin planning efforts for follow-on integration and testing phases in close collaboration with other IWS elements in preparation for fielding. ***FY 2017 OCO Plans:*** N/A	0.000 -	0.000 -	9.400 -	0.000 -	9.400 -
Title: CEC INCREMENT 2 ***Articles:*** ***FY 2015 Accomplishments:*** N/A ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** Begin Composite Surface Tracking (CST) development effort, with System Functional Review (SFR) and System Requirement Review (SRR), to integrate surface radar data and provide it across the CEC Data Distribution System (DDS) Radio to all other networked platforms. In addition to leveraging ongoing Close In Weapons System (CIWS) Sensor Adaptive Layer efforts in FCLIP, begin development of advanced CEC kernel functions to provide surface tracking specific environmental filters to also leverage surface radar measurements from existing sensors. Develop conceptual approach leading to a 2018 demonstration of an Automated Battle Management Aid (ABMA). Coordinate with candidate ABMA's such as the Electronic Warfare Battle	0.000 -	0.000 -	1.900 -	0.000 -	1.900 -

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Management (EWBM) and Force Level Radar Resource Manager (FLRRM) and examine approaches with potential for successful way forward to field force level features across battlegroups. ***FY 2017 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	0.000	0.000	84.501	0.000	84.501

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• SCN: *Navy, SCN*	11.200	34.100	17.700	-	17.700	31.300	18.100	12.500	12.700	64.000	504.431
• APN/0204152N: *Navy, APN*	15.986	16.280	19.914	-	19.914	16.925	10.358	10.565	10.776	57.200	375.987
• OPN/2606: *CEC*	33.939	25.695	22.034	-	22.034	34.401	32.066	32.047	31.863	66.525	1,035.295
• RDT&E/0206313M: *USMC*	0.752	0.762	3.487	-	3.487	2.092	1.255	0.752	0.730	0.000	31.700
• RDT&E/0206335M: *USMC*	0.603	0.315	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.352
• O&M,N/0206626M: *USMC*	3.508	1.396	3.254	-	3.254	3.157	3.062	2.970	2.881	0.000	25.775
• PMC/0206313M: *USMC*	1.924	6.266	6.480	-	6.480	8.070	3.500	3.550	0.000	0.000	30.570
• OPN/0960: *CG/MOD*	21.900	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	59.737
• OPN/0900: *DDG/MOD*	5.000	2.400	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	63.911

Remarks

D. Acquisition Strategy

CEC Acquisition Strategy (AS) approved by OSD (AT&L) on 19 January 2010. CEC Acquisition Plan (AP) approved September 2013. Full Rate Production for CEC AN/USG-3B variant approved April 2014.

Contracts:
Common Array Block (CAB) antenna - contract competitively awarded 4Qtr FY2013.
CEC Design Agent/Engineering Services (DA/ES) follow-on sole source contract awarded 4Qtr FY2013.
CEC Production - New contract will be competitively awarded in 2Qtr FY2015.
CEC DA/ES contract will be competitively awarded 1Qtr FY2019.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

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 E-2D Advanced Hawkeye aircraft CEC integration efforts.
- 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 Crypto Modernization Tech Refresh efforts.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0607658N / *(U)Cooperative Engagement Capability*	Project (Number/Name) 2039 / *COOP Engagement*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/USG-2/3 Design Agent/Engineering Services	C/CPFF	Raytheon : St. Petersburg, FL	127.395	0.000		0.000		11.097	Jan 2017	-		11.097	Continuing	Continuing	Continuing
TDA	C/CPFF	JHU/APL : Laurel, MD	78.150	0.000		0.000		10.960	Feb 2017	-		10.960	Continuing	Continuing	Continuing
SI/DA	C/CPAF	General Dynamics : Fairfax, VA	23.979	0.000		0.000		0.000		-		0.000	0.000	23.979	-
SI/DA	C/CPAF	Award Fees : Not Specified	2.903	0.000		0.000		0.000		-		0.000	0.000	2.903	-
DDG 1000	C/CPAF	Raytheon : Massachusetts	10.983	0.000		0.000		0.000		-		0.000	0.000	10.983	-
DDG 1000	C/CPAF	Award Fees : Not Specified	0.447	0.000		0.000		0.000		-		0.000	0.000	0.447	-
NIFC-CA Integration	TBD	Various : Not Specified	41.799	0.000		0.000		5.700	Jan 2017	-		5.700	Continuing	Continuing	Continuing
In-Service Engineering Activity	WR	NSWC : Port Hueneme, CA	6.463	0.000		0.000		1.825	Dec 2016	-		1.825	Continuing	Continuing	Continuing
Software Support Activity/ SEIA	WR	NSWC : Dahlgren, VA	19.718	0.000		0.000		1.884	Dec 2016	-		1.884	Continuing	Continuing	Continuing
Production Engineering Activity	WR	NSWC : Crane, IN	5.694	0.000		0.000		0.000		-		0.000	0.000	5.694	-
JTRS	TBD	Various : Not Specified	8.500	0.000		0.000		0.000		-		0.000	0.000	8.500	-
Various	TBD	Miscellaneous : Not Specified	31.873	0.000		0.000		2.635	Dec 2016	-		2.635	Continuing	Continuing	Continuing
NAVSSI	WR	SPAWAR : San Diego, CA	0.368	0.000		0.000		0.000		-		0.000	0.000	0.368	-
Certification	MIPR	NSA : Fort Meade, MD	1.200	0.000		0.000		0.000		-		0.000	0.000	1.200	-
Certification	WR	SPAWAR : Charleston, SC	0.930	0.000		0.000		0.000		-		0.000	0.000	0.930	-

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Exercises	WR	Various : Not Specified	3.744	0.000		0.000		0.000		-		0.000	0.000	3.744	-
LBTS Testing	WR	CDSA Dam Neck : Virginia Beach, VA	7.495	0.000		0.000		0.500	Dec 2016	-		0.500	Continuing	Continuing	Continuing
LBTS Testing	WR	SCSC : Wallops Island, VA	7.083	0.000		0.000		0.500	Jan 2017	-		0.500	Continuing	Continuing	Continuing
E-2D Integration	TBD	Various : Not Specified	47.758	0.000		0.000		2.800	Feb 2017	-		2.800	Continuing	Continuing	Continuing
MSI/NCCT	MIPR	Wright Patterson AFB : Dayton, OH	1.228	0.000		0.000		0.000		-		0.000	0.000	1.228	-
Common Array Block Development	C/CPFF	Various : Not Specified	40.561	0.000		0.000		10.200	Jan 2017	-		10.200	Continuing	Continuing	Continuing
NEEDS	C/CPFF	Various : Not Specified	31.930	0.000		0.000		6.600	Feb 2017	-		6.600	Continuing	Continuing	Continuing
AMDR	C/CPFF	Various : Not Specified	12.012	0.000		0.000		9.500	Feb 2017	-		9.500	Continuing	Continuing	Continuing
JTMC	C/CPFF	Raytheon : St. Petersburg, FL	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
FCLIP	C/CPFF	Various : Not Specified	7.100	0.000		0.000		9.400	Feb 2017	-		9.400	Continuing	Continuing	Continuing
CEC Increment 2	C/CPFF	Various : Not Specified	0.000	0.000		0.000		1.900	Feb 2017	-		1.900	Continuing	Continuing	Continuing
		Subtotal	520.313	0.000		0.000		75.501		-		75.501	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test/ACB Support	C/CPFF	Raytheon : St. Petersburg, FL	5.114	0.000		0.000		1.113	Feb 2017	-		1.113	Continuing	Continuing	Continuing
Test/ACB Support	C/CPFF	JHU/APL : Laurel, MD	2.676	0.000		0.000		1.058	Feb 2017	-		1.058	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	WR	NRL : Washington, DC	0.313	0.000		0.000		0.000		-		0.000	0.000	0.313	-
Test/ACB Support	WR	NSWC : Port Hueneme, CA	24.386	0.000		0.000		1.895	Feb 2017	-		1.895	Continuing	Continuing	Continuing
Air Operations Test Support	WR	NAVAIR (PMA207) : Patuxent River, MD	10.187	0.000		0.000		1.047	Feb 2017	-		1.047	Continuing	Continuing	Continuing
Test Data Reduction Analysis	WR	NSWC : Corona, CA	17.934	0.000		0.000		1.334	Feb 2017	-		1.334	Continuing	Continuing	Continuing
Test Support	WR	COMOPTEVFOR : Norfolk, VA	12.607	0.000		0.000		1.175	Feb 2017	-		1.175	Continuing	Continuing	Continuing
Test/ACB Support	WR	NSWC : Dahlgren, VA	2.290	0.000		0.000		1.378	Feb 2017	-		1.378	Continuing	Continuing	Continuing
		Subtotal	75.507	0.000		0.000		9.000		-		9.000	-	-	-

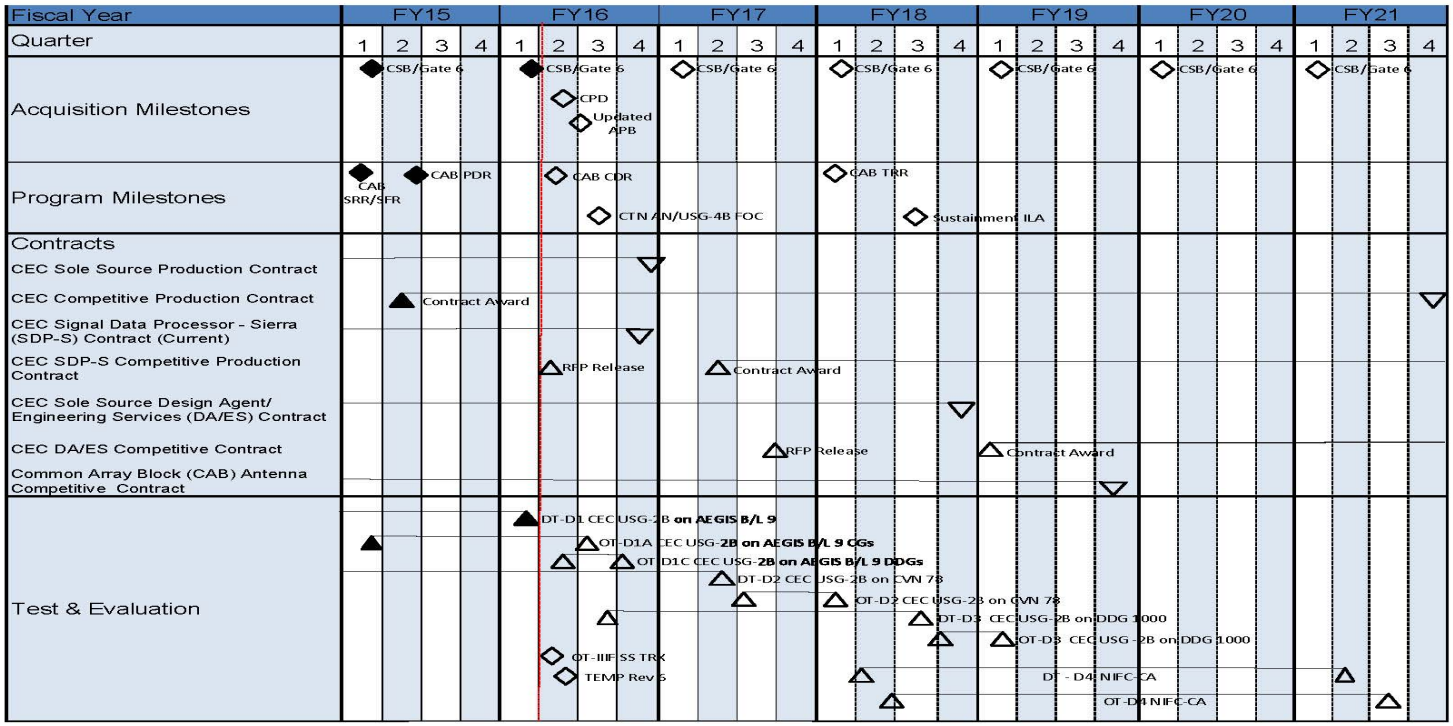
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/FFP	Booz Allen & Hamilton : Washington, DC	5.070	0.000		0.000		0.000		-		0.000	0.000	5.070	-
Program Management Support	C/FFP	Tech Marine : Washington, DC	0.360	0.000		0.000		0.000		-		0.000	0.000	0.360	-
		Subtotal	5.430	0.000		0.000		0.000		-		0.000	0.000	5.430	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	601.250	0.000		0.000		84.501		-		84.501	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*



Copy of CEC Program Congressional Schedule_05 January 2016

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2039				
FY15 CSB/Gate 6	1	2015	1	2015
FY16 CSB/Gate 6	1	2016	1	2016
FY17 CSB/Gate 6	1	2017	1	2017
FY18 CSB/Gate 6	1	2018	1	2018
FY19 CSB/Gate 6	1	2019	1	2019
FY20 CSB/Gate 6	1	2020	1	2020
FY21 CSB/Gate 6	1	2021	1	2021
CPD	2	2016	2	2016
Updated APB	3	2016	3	2016
CAB SRR/SFR	1	2015	1	2015
CAB PDR	2	2015	2	2015
CAB CDR	2	2016	2	2016
CAB TRR	1	2018	1	2018
Sustainment ILA	3	2018	3	2018
CTN AN/USG-4B FOC	3	2016	3	2016
CEC Sole Source Production Contract	1	2015	4	2016
CEC Competitive Production Contract	2	2015	4	2021
CEC SDP-S Competitive Production Contract	2	2017	4	2021
CEC Design Agent/Engineering Services (DA/ES) Contract	1	2015	4	2018
CEC DA/ES Competitive Contract	1	2019	4	2021
DT-D1 CEC USG-2B on AEGIS B/L 9	1	2015	1	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0607658N / *(U)Cooperative Engagement Capability*	**Project (Number/Name)** 2039 / *COOP Engagement*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
OT-D1A CEC USG-2B on AEGIS B/L 9 CGs	1	2015	3	2016
OT-D1C CEC USG-2B on AEGIS B/L 9 DDGs	2	2016	4	2016
DT-D2 CEC USG-2B on CVN 78	1	2015	2	2017
OT-D2 CEC USG-2B on CVN 78	3	2017	1	2018
DT-D3 CEC USG-2B on DDG 1000	3	2016	3	2018
OT-D3 CEC USG-2B on DDG 1000	4	2018	1	2019
OT-IIIF SS TRX	2	2016	2	2016
TEMP Rev 6	2	2016	2	2016
DT-D4 NIFC-CA	2	2018	2	2021
OT-D4 NIFC-CA	2	2018	3	2021
CEC SDP-S Contract	1	2015	4	2016
Common Array Block (CAB) Contract	1	2015	4	2019
SDP-S RFP Release	2	2016	2	2016
DA/ES RFP Release	4	2017	4	2017