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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603658N: Cooperative Engagement							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	43.424	60.334	52.282	0.000	52.282	45.559	44.614	45.621	46.492	Continuing	Continuing
2039: COOP Engagement	38.637	56.351	52.282	0.000	52.282	45.559	44.614	45.621	46.492	Continuing	Continuing
9999: Congressional Adds	4.787	3.983	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	36.715
A. Mission Description and Budget Item Justification											
<p>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 capable of fire control quality. CEC distributes sensor data from each ship and 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.</p> <p>CEC consists of the Data Distribution System (DDS), the Cooperative Engagement Processor (CEP), and Combat System modifications. 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 is able to process force levels of data in near real-time. This 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. CEC is also incorporating Advanced Capability Build-12 (ACB-12) into the CEC baseline for FY09 - FY13.</p> <p>The Navy has implementated a Single 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, comms independence. SDP will provide hardware which complies with Category 3 Open Architecture Computing Environment (OACE) standards with rehosted existing software, which will be fielded fleet-wide to allow affordable replacement of obsolete computing system components and eliminate dependencies on "closed" equipment, operating systems, and middleware.</p>											

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0603658N: Cooperative Engagement			
BA 4: Advanced Component Development & Prototypes (ACD&P)					
Additionally, CEC is working with the Army to engineer a Joint Track Management (JTM) and sensor measurement fusion capability, which will be implemented in their respective Programs of Record to achieve interoperability across the battle space.					
In regard to SDP Backfit, COMOPTEVFOR found the AN/USG-3 (E-2C Airborne CEC) Operationally Effective, but not Operationally Suitable. Reliability and availability issues are addressed by the replacement of four Weapons Replaceable Assemblies (WRAs) with the new SDP. Backfit of the SDP in the E-2C will resolve suitability issues and address National Security Agency (NSA) directed Crypto Modernization requirements with funding provided in FY10 and FY11. The SDP will also be used in E-2D.					
In regard to Large Nets, Spiral 1 responds to emergent needs of operational forces and missions. Provides an extensible foundation for capability growth. Provides interoperability with legacy units in Global Mode. Spiral 2 in conjunction with Spiral 1 efforts will provide a 3X increase in DDS network size. This is needed to improve multiple battle group operations. Applicable ships and systems include all CEC deployed units and future fielding to include CG/DDG Modernization, and its Pathfinder Programs. Data Distribution System (DDS) must increase nodes to enable Joint Network Warfare Capabilities with funding provided in FY10 and FY11.					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	42.999	56.586	0.000	0.000	0.000
Current President's Budget	43.424	60.334	52.282	0.000	52.282
Total Adjustments	0.425	3.748	52.282	0.000	52.282
• Congressional General Reductions		-0.252			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		4.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	1.452	0.000			
• SBIR/STTR Transfer	-1.027	0.000			
• Program Adjustments	0.000	0.000	52.282	0.000	52.282
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 9999: Congressional Adds					
Congressional Add: Cooperative Engagement Capability Tech Refresh, I					
	FY 2009	FY 2010			
	4.787	3.983			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2011 Navy		<b>DATE:</b> February 2010	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0603658N: <i>Cooperative Engagement</i>	
<b><u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u></b>		<b>FY 2009</b>	<b>FY 2010</b>
Congressional Add Subtotals for Project: 9999		4.787	3.983
Congressional Add Totals for all Projects		4.787	3.983
<b><u>Change Summary Explanation</u></b> Narrative Explanation: FY10 - Congressional Add and Economic Assumptions  Technical: Not Applicable.  Schedule: Not Applicable.  FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Navy								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603658N: <i>Cooperative Engagement</i>				<b>PROJECT</b> 2039: <i>COOP Engagement</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2039: <i>COOP Engagement</i>	38.637	56.351	52.282	0.000	52.282	45.559	44.614	45.621	46.492	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
<b>A. Mission Description and Budget Item Justification</b> <p>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 capable of fire control quality. CEC distributes sensor data from each ship and 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.</p> <p>CEC consists of the Data Distribution System (DDS), the Cooperative Engagement Processor (CEP), and Combat System modifications. The DDS encodes and distributes ownship 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 is able to process force levels of data in near real-time. This 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. CEC is also incorporating Advanced Capability Build-12 (ACB-12) into the CEC baseline for FY09 - FY13.</p> <p>The Navy has implemented a Single 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, comms independence. SDP will provide hardware which complies with Category 3 Open Architecture Computing Environment (OACE) standards with rehosted existing software, which will be fielded fleet-wide to allow affordable replacement of obsolete computing system components and eliminate dependencies on "closed" equipment, operating systems, and middleware.</p>											

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In regard to SDP Backfit, COMOPTEVFOR found the AN/USG-3 (E-2C Airborne CEC) Operationally Effective, but not Operationally Suitable. Reliability and availability issues are addressed by the replacement of four Weapons Replaceable Assemblies (WRAs) with the new SDP. Backfit of the SDP in the E-2C will resolve suitability issues and address National Security Agency (NSA) directed Crypto Modernization requirements with funding provided in FY10 and FY11. The SDP will also be used in E-2D.						
In regard to Large Nets, Spiral 1 responds to emergent needs of operational forces and missions. Provides an extensible foundation for capability growth. Provides interoperability with legacy units in Global Mode. Spiral 2 in conjunction with Spiral 1 efforts will provide a 3X increase in DDS network size. This is needed to improve multiple battle group operations. Applicable ships and systems include all CEC deployed units and future fielding to include CG/DDG Modernization, and its Pathfinder Programs. Data Distribution System (DDS) must increase nodes to enable Joint Network Warfare Capabilities with funding provided in FY10 and FY11.						
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
E-2D		10.430	3.650	2.350	0.000	2.350
FY 2009 Accomplishments: Continued CEC Integration efforts with E-2D.						
FY 2010 Plans: Continue CEC Integration efforts with E-2D.						
FY 2011 Base Plans: Continue CEC Integration efforts with E-2D.						
B/L 2.1 INTEGRATION AND FOT&E TESTING		4.000	10.200	15.000	0.000	15.000
FY 2009 Accomplishments: Continued development, integration and testing of computer program Baseline 2.1 for ACDS, AEGIS, and SSDS platforms. Begin FOT&E teesting and analysis. Continue SDP test analysis.						

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Continue development, integration and testing of computer program Baseline 2.1 for ACDS, AEGIS, and SSDS platforms. Begin FOT&E teesting and analysis. Continue SDP test analysis.					
FY 2011 Base Plans: Continue development, integration and testing of computer program Baseline 2.1 for ACDS, AEGIS, and SSDS platforms. Begin FOT&E teesting and analysis. Continue SDP test analysis.					
NIFC-CA  FY 2009 Accomplishments: Continued CEC Integration efforts with NIFC-CA.  FY 2010 Plans: Continue CEC Integration efforts with NIFC-CA.  FY 2011 Base Plans: Continue CEC Integration efforts with NIFC-CA.	2.850	2.080	2.080	0.000	2.080
SYSTEMS ENIGNEERING/INTEGRATION AGENT  FY 2009 Accomplishments: Continued Systems Engineering/Integration Agent (SE/IA) for development and execution of systems engineering processes by NSWC, Dahlgren.  FY 2010 Plans: Continue Systems Engineering/Integration Agent (SE/IA) for development and execution of systems engineering processes by NSWC, Dahlgren.	1.564	1.612	1.662	0.000	1.662

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Continue Systems Engineering/Integration Agent (SE/IA) for development and execution of systems engineering processes by NSWC, Dahlgren.						
SYSTEM IMPROVEMENTS  FY 2009 Accomplishments: Continued CEC system improvements including enhanced communications, expansion of networking capability, development of system protection/multi-level secure operational-level secure operations, Cryptologic Modernization, design agent and engineering services.  FY 2010 Plans: Continue CEC system improvements including enhanced communications, expansion of networking capability, development of system protection/multi-level secure operational-level secure operations, Cryptologic Modernization, design agent and engineering services.  FY 2011 Base Plans: Continue CEC system improvements including enhanced communications, expansion of networking capability, development of system protection/multi-level secure operational-level secure operations, Cryptologic Modernization, design agent and engineering services.		11.734	26.312	18.733	0.000	18.733
JOINT OPERATIONS  FY 2009 Accomplishments: Continued participation in system interoperability exercises and Joint Integrated Demonstrations.  FY 2010 Plans: Continue participation in system interoperability exercises and Joint Integrated Demonstrations.		1.500	1.500	1.500	0.000	1.500

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
FY 2011 Base Plans: Continue participation in system interoperability exercises and Joint Integrated Demonstrations.											
FIELD ACTIVITIES						6.559	10.997	10.957	0.000	10.957	
FY 2009 Accomplishments: Continued field activity support of CEC development efforts (i.e. Technical Direction Agent, In-Service Engineering, Integrated Logistics Support Planning) and program management support.											
FY 2010 Plans: Continue field activity support of CEC development efforts (i.e. Technical Direction Agent, In-Service Engineering, Integrated Logistics Support Planning) and program management support.											
FY 2011 Base Plans: Continue field activity support of CEC development efforts (i.e. Technical Direction Agent, In-Service Engineering, Integrated Logistics Support Planning) and program management support.											
Accomplishments/Planned Programs Subtotals						38.637	56.351	52.282	0.000	52.282	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• Various/OPN: Navy, OPN	50.180	63.209	69.331	0.000	69.331	62.508	68.488	69.225	46.648	Continuing	Continuing
• Various/SCN: Navy, SCN	20.499	7.568	17.006	0.000	17.006	6.680	17.104	0.000	0.000	Continuing	Continuing
• Various/APN: Navy, APN	7.689	7.978	16.277	0.000	16.277	24.903	29.636	34.547	35.237	Continuing	Continuing
• Various/RDTEN: Navy, RDT&E	0.773	2.200	0.490	0.000	0.490	0.900	0.570	0.556	0.540	Continuing	Continuing
D. Acquisition Strategy											
CEC Acquisition Strategy (AS) has been revised and is in route with final signature expected second quarter of FY10.											

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<b>E. Performance Metrics</b> Complete the Build and test of the Signal Data Processor with the Sierra II Crypto Chip. Successful completion will result in an Interim Authority to Transmit and NSA full Certification for operation. 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. Finalize the IFC Kernel development changes and integration with AHE adaptive layer for release 3. Continue AEGIS Advance Capability Build-12 (ACB-12) CEC integration and demonstration efforts. Continue Naval Integrated Fire Control - Counter Air (NIFC-CA) CEC integration and demonstration efforts. Continue E-2D Advance Hawkeye aircraft CEC integration efforts. Continue Crypto Modernization Tech Refresh efforts.		

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Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
AN/USG-2/3 Development	C/CPFF	Raytheon St. Petersburg, FL	30.387	18.770	Dec 2009	13.848	Dec 2010	0.000		13.848	Continuing	Continuing	Continuing	
AN/USG-2/3 Development/TDA	C/CPFF	JHU/APL Laurel, MD	24.446	8.000	Dec 2009	8.000	Oct 2010	0.000		8.000	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	Continuing	
SI/DA	C/CPAF	Award Fees Not Specified	2.903	0.000		0.000		0.000		0.000	0.000	2.903	Continuing	
P3I	C/CPAF	Raytheon St. Petersbrug, FL	11.475	0.000		0.000		0.000		0.000	0.000	11.475	Continuing	
DDG 1000	C/CPAF	Raytheon Massuchusetts	10.983	0.000		0.000		0.000		0.000	0.000	10.983	Continuing	
DDG 1000	C/CPAF	Award Fees Not Specified	0.447	0.000		0.000		0.000		0.000	0.000	0.447	Continuing	
NIFC-CA Integration	Various/ TBD	Various Not Specified	29.479	2.080	Dec 2009	2.080	Dec 2010	0.000		2.080	Continuing	Continuing	Continuing	
In-Service Engineering Activity	WR	NSWC Port Hueneme, CA	0.357	0.250	Nov 2009	0.250	Nov 2010	0.000		0.250	Continuing	Continuing	Continuing	
Software Support Activity/SEIA	WR	NSWC Dahlgren, VA	8.064	1.612	Nov 2009	1.662	Nov 2010	0.000		1.662	Continuing	Continuing	Continuing	
Production Engineering Activity	WR	NSWC Crane, IN	3.094	1.000	Jan 2010	1.000	Nov 2010	0.000		1.000	Continuing	Continuing	Continuing	

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Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
JTRS	Various/ TBD	Various Not Specified	8.500	0.000		0.000		0.000		0.000	0.000	8.500	Continuing	
Various	Various/ TBD	Miscellaneous Not Specified	5.830	6.289	Jan 2010	3.713	Jan 2011	0.000		3.713	Continuing	Continuing	Continuing	
NAVSSI	WR	SPAWAR San Deigo, CA	0.368	0.000		0.000		0.000		0.000	0.000	0.368	Continuing	
Certification	MIPR	NSA Fort Meade, MD	0.350	0.250	Feb 2010	0.250	Nov 2010	0.000		0.250	Continuing	Continuing	Continuing	
Certification	WR	SPAWAR Charleston, SC	0.780	0.150		0.000		0.000		0.000	Continuing	Continuing	Continuing	
Joint Exercises	WR	Various Not Specified	2.244	1.500	Jan 2010	1.500	Nov 2010	0.000		1.500	Continuing	Continuing	Continuing	
LBTS Testing	WR	CDSA Damneck Virginia Beach, VA	2.770	1.000	Nov 2009	1.000	Nov 2010	0.000		1.000	Continuing	Continuing	Continuing	
Testing Support	Reqn	SCSC Wallops Island, VA	2.630	0.600	Jan 2010	0.629	Nov 2010	0.000		0.629	Continuing	Continuing	Continuing	
E-2D Integration	Various/ TBD	Various Not Specified	30.898	3.650	Jan 2010	2.350	Jan 2011	0.000		2.350	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	Continuing	
Subtotal			201.212	45.151		36.282		0.000		36.282				

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<b>Product Development (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Remarks</b> Explanations for the use of "WR, MP, and PD" 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.													
<b>Test and Evaluation (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Test Support	C/CPFF	Raytheon St. Petersburg, FL	0.000	0.540	Dec 2009	0.794	Dec 2010	0.000		0.794	Continuing	Continuing	Continuing
Test Support	C/CPFF	JHU/APL Laurel, MD	0.000	0.080	Dec 2009	0.118	Oct 2010	0.000		0.118	Continuing	Continuing	Continuing
Test Support	WR	NRL Washington, DC	0.313	0.000		0.000		0.000		0.000	0.000	0.313	Continuing
Test Support	WR	NWSC Port Hueneme, CA	8.376	3.332	Oct 2009	4.900	Oct 2010	0.000		4.900	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>					R-1 ITEM NOMENCLATURE PE 0603658N: <i>Cooperative Engagement</i>					PROJECT 2039: <i>COOP Engagement</i>	

## Test and Evaluation (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Air Operations Test Support	WR	NAVAIR (PMA207) Patuxent River, MD	1.626	2.038	Jan 2010	2.997	Oct 2010	0.000		2.997	Continuing	Continuing	Continuing
Test Data Reduction Analysis	WR	NWAS Corona, CA	4.768	2.450	Oct 2009	3.603	Oct 2010	0.000		3.603	Continuing	Continuing	Continuing
Test Support	WR	COMOPTEVFOR Not Specified	1.929	1.760	Jan 2010	2.588	Oct 2010	0.000		2.588	Continuing	Continuing	Continuing
<b>Subtotal</b>			17.012	10.200		15.000		0.000		15.000			

### 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

## Management Services (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	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	2.430	0.880	Dec 2009	0.880	Dec 2010	0.000		0.880	Continuing	Continuing	Continuing
	C/FFP		0.000	0.120	Dec 2009	0.120	Dec 2010	0.000		0.120	Continuing	Continuing	Continuing

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Navy</b>											<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603658N: <i>Cooperative Engagement</i>				<b>PROJECT</b> 2039: <i>COOP Engagement</i>					
<b>Management Services (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Management Support		Tech Marine Business Washington, DC											
<b>Subtotal</b>			2.430	1.000		1.000		0.000		1.000			
<b>Remarks</b>													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			220.654	56.351		52.282		0.000		52.282			
<b>Remarks</b>													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy

DATE: February 2010

**APPROPRIATION/BUDGET ACTIVITY**

1319: Research, Development, Test & Evaluation, Navy  
BA 4: Advanced Component Development & Prototypes (ACD&P)

**R-1 ITEM NOMENCLATURE**

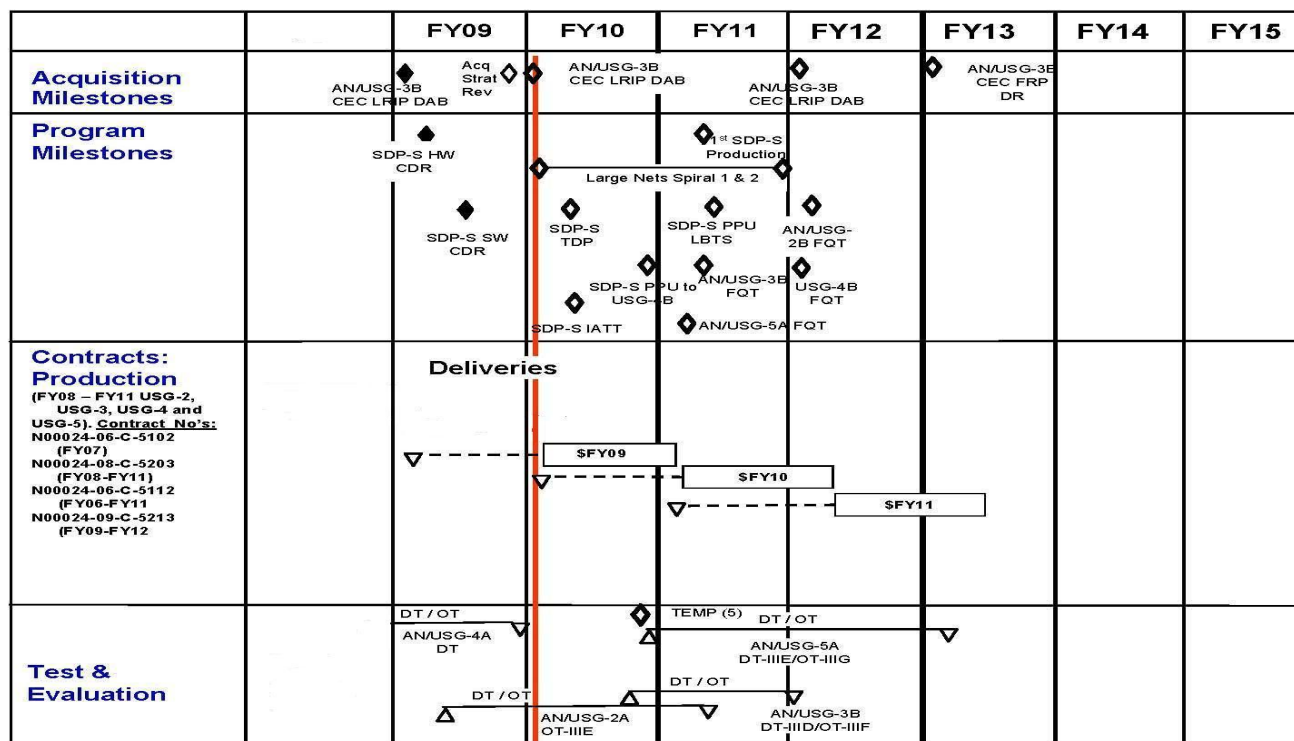
PE 0603658N: Cooperative Engagement

**PROJECT**

2039: COOP Engagement



# CEC Program Schedule as of October 2009



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2011 Navy			<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603658N: <i>Cooperative Engagement</i>	<b>PROJECT</b> 2039: <i>COOP Engagement</i>	

## Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
AN/USG-3B CEC LRIP DAB	1	2009	1	2010
Crypto Mod SDP-S H/W CDR	2	2009	2	2009
Crypto Mod SDP-S S/W CDR	3	2009	3	2009
Acquisition Strategy Review	4	2009	4	2009
Large Nets Spiral 1 & 2	1	2010	4	2011
FY09-11 AN/USG-3 - 5 Production Deliveries	1	2009	1	2011
SDP-S TDP	2	2010	2	2010
SDP-S IATT	2	2010	2	2010
SDP-S PPU TO AN/USG-4B	4	2010	4	2010
1st SDP-S Production	2	2011	2	2011
SDP-S PPU Land Base Test Site (LBTS)	2	2011	2	2011
AN/USG-3B FQT	2	2011	2	2011
AN/USG-5A FQT	2	2011	2	2011
AN/USG-3B LRIP DAB	1	2012	1	2012
AN/USG-2B FQT	1	2012	1	2012
AN/USG-4B FQT	1	2012	1	2012
AN/USG-3B CEC FRP DR	1	2013	1	2013
AN/USG-4A DT	1	2009	4	2009

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603658N: Cooperative Engagement		PROJECT 2039: COOP Engagement	
	Start		End	
Event	Quarter	Year	Quarter	Year
AN/USG-2A OT-IIIE	2	2009	2	2011
TEMP (5)	4	2010	4	2010
AN/USG-3B DT-IIID/OT-IIIF	3	2010	1	2012
AN/USG-5A DT-IIIE/OT-IIIE/OT-IIIG	4	2010	2	2013

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Navy								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0603658N: <i>Cooperative Engagement</i>				<b>PROJECT</b> 9999: <i>Congressional Adds</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
9999: <i>Congressional Adds</i>	4.787	3.983	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	36.715
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
<b>A. Mission Description and Budget Item Justification</b> Congressional Add funding will be used for CEC improvements for Crypto Modernization at Raytheon.											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
							<b>FY 2009</b>	<b>FY 2010</b>			
Congressional Add: Cooperative Engagement Capability Tech Refresh, I  <i>FY 2009 Accomplishments:</i> Continued CEC system improvements including enhanced communications, expansion of capability, and development of system protection/multi-level secure operational-level operations.  <i>FY 2010 Plans:</i> Continue CEC system improvements including enhanced communications, expansion of capability, and development of system protection/multi-level secure operational-level operations.							4.787	3.983			
Congressional Adds Subtotals							4.787	3.983			
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A											
<b>D. Acquisition Strategy</b> N/A											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	R-1 ITEM NOMENCLATURE PE 0603658N: <i>Cooperative Engagement</i>	PROJECT 9999: <i>Congressional Adds</i>
<u>E. Performance Metrics</u> Congressional add.		