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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604574N: <i>Navy Tactical Computer Resources</i>
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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	0.000	4.601	4.443	0.000	4.443	4.533	4.622	4.712	4.801	Continuing	Continuing
1353: <i>Standard Hardware</i>	0.000	4.601	4.443	0.000	4.443	4.533	4.622	4.712	4.801	Continuing	Continuing

A. Mission Description and Budget Item Justification

The AN/UYQ-70(V) program initially incorporated state-of-the-art Commercial-off-the-Shelf/Open System Architecture (COTS/OSA) technological improvements continuously and rapidly, in order to meet rapidly evolving future customer requirements. The product baseline was designed to increase capability in order to satisfy the needs of future FORCENet network-centric Open Architecture combat system designs. The Common Processing System (CPS) and Common Display System (CDS) programs are being executed to bring Open Architecture hardware and technology utilization into a common configuration in a competitive sourcing environment. CPS provides the computer processing and memory, data storage and extraction, and Input/Output (I/O) interface to support hosting Navy combat system software applications and management of computing resources in support of the AEGIS Modernization program, the CVN program, PEO SUB platforms, and other platforms. CDS provides common human machine interface (Combat Information Center (CIC) consoles and remote displays) to the AEGIS Open Architecture (OA) computing environment and provide war fighter team situational awareness in support of the AEGIS Modernization program, then provide the same capabilities to the CVN program, DDG-1000, PEO SUB platforms, and other platforms. Both CDS and CPS provide technical replacements of obsolete display and processing equipment (such as AN/UYQ-70) supporting multiple platforms including AEGIS Destroyers, Cruisers undergoing modernization, the CVN program, DDG-1000, PEO SUB programs, and other platforms.

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B. Program Change Summary (\$ in Millions)

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	0.000	4.620	0.000	0.000	0.000
Current President's Budget	0.000	4.601	4.443	0.000	4.443
Total Adjustments	0.000	-0.019	4.443	0.000	4.443
• Congressional General Reductions		-0.019			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Program Adjustments	0.000	0.000	4.443	0.000	4.443

Change Summary Explanation

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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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
1353: <i>Standard Hardware</i>	0.000	4.601	4.443	0.000	4.443	4.533	4.622	4.712	4.801	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Common Processing System (CPS) provides the computer processing and memory, data storage and extraction, and Input/Output (I/O) interface to support hosting Navy combat system software applications and management of computing resources in support of the AEGIS Modernization program, the CVN program, PEO SUB platforms, and other platforms. The Common Display System (CDS) provides common human machine interface (Combat Information Center (CIC) consoles and remote displays) to the AEGIS Open Architecture (OA) computing environment and provide war fighter team situational awareness in support of the AEGIS Modernization program, then provide the same capabilities to the CVN program, DDG-1000, PEO SUB platforms, and other platforms. Both CDS and CPS provide technical replacements of obsolete display and processing equipment (such as AN/UYQ-70) supporting multiple platforms including AEGIS Destroyers, Cruisers undergoing modernization, the CVN program, DDG-1000, PEO SUB programs, and other platforms.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Systems Engineering <i>FY 2010 Plans:</i> Provide Common Display System (CDS) and Common Processing System (CPS) technical replacements of obsolete AN/UYQ-70 display and processing equipment supporting multiple platforms including AEGIS Destroyers and Cruisers undergoing modernization. Perform technology refresh of CDS and CPS equipment. <i>FY 2011 Base Plans:</i> Continue development of CDS and CPS to support multiple platforms including AEGIS Destroyers and Cruisers undergoing modernization, CVN, PEO SUBs, and other platforms. Perform technology refresh of CDS and CPS equipment.	0.000	4.601	4.443	0.000	4.443

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Accomplishments/Planned Programs Subtotals	0.000	4.601	4.443	0.000	4.443

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

No major acquisitions in FY11.

Contracts:

CDSIDIQ Production continues FY10-FY15.

CPS IDIQ Production commences FY10-FY14.

E. Performance Metrics

CDS Performance Metrics

2010 Funding:

- Successfully complete CDS Tech. Refresh/Tech Insertion Systems Requirements Review (SRR)
- Successfully complete CDS Tech. Refresh/Tech Insertion Preliminary Design Review (PDR)
- Successfully complete CDS Tech. Refresh/Tech Insertion Critical Design Review (CDR)
- Conduct Quarterly CDS/CPS Tech. Refresh/Tech. Insertion Working Group Mtgs with prime contractors and the customers to identify technology refresh priorities, customer requirements, future technology trends, obsolescence problems.
- Conduct several CDS Technical Interchange Meetings on an as-needed basis to explore and resolve emergent technical design issues.

2011 Funding:

- Successfully complete CDS Tech. Refresh/Tech. Insertion Production Readiness Review (PRR)
- Conduct Quarterly CDS/CPS Tech. Refresh/Tech. Insertion Working Group Mtgs with prime contractors and the customers to identify technology refresh priorities, customer requirements, future technology trends, obsolescence problems.
- Conduct CDS Technical Interchange Meetings on an as-needed basis to explore and resolve emergent technical design issues.

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<p>-Successfully complete CDS Technology Refresh Environmental Qualification testing.</p> <p>CPS Performance Metrics</p> <p>2010 Funding:</p> <ul style="list-style-type: none">-Conduct Quarterly CDS/CPS Tech. Refresh/Tech. Insertion Working Group Mtgs with prime contractors and the customers to identify technology refresh priorities, customer requirements, future technology trends, obsolescence problems.-Conduct CPS Technical Interchange Meetings to explore and resolve emergent technical design issues. <p>2011 Funding:</p> <ul style="list-style-type: none">-Conduct Quarterly CDS/CPS Tech. Refresh/Tech. Insertion Working Group Mtgs with prime contractors and the customers to identify technology refresh priorities, customer requirements, future technology trends, obsolescence problems.-Conduct CPS Technical Interchange Meetings to explore and resolve emergent technical design issues.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy **DATE:** February 2010

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering	WR	NSWC PHD	0.130	0.000		0.000		0.000		0.000	0.000	0.130	Continuing
Systems Engineering	WR	NSWC Dahlgren	1.021	2.120	Jan 2010	0.000		0.000		0.000	0.000	3.141	Continuing
Systems Engineering	WR	NSWC Crane	0.799	0.000		0.000		0.000		0.000	0.000	0.799	Continuing
Systems Engineering	C/CPFF	General Dynamics Fairfax, VA	0.000	1.602	Jan 2010	2.222	Jan 2011	0.000		2.222	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	DRS Technologies Gaithersburg, MD	0.000	0.478	Jan 2010	0.666	Jan 2011	0.000		0.666	Continuing	Continuing	Continuing
Systems Engineering	C/CPIF	Global Technical Systems Virginia Beach, VA	0.000	0.401	Jan 2010	1.555	Jan 2011	0.000		1.555	Continuing	Continuing	Continuing
Systems Engineering	Various/ Various	Various Various	0.097	0.000		0.000		0.000		0.000	0.000	0.097	Continuing
Subtotal			2.047	4.601		4.443		0.000		4.443			

Remarks

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Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total		Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date			
Program Management Services	Various/ Various	Various Various	0.100	0.000		0.000		0.000		0.000		0.100	0.200	Continuing
Subtotal			0.100	0.000		0.000		0.000		0.000		0.100	0.200	

Remarks

Project Cost Totals	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
		Cost	Award Date	Cost	Award Date	Cost	Award Date				
Project Cost Totals	2.147	4.601		4.443		0.000		4.443			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy					DATE: February 2010	
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	FY10	FY11	FY12	FY13	FY14	FY15
Acquisition Milestones						
CPS TRR	◇					
CPS PRR			◇			
Contracts:						
CDSIDIQ Production	▲▲▲▲▲	▲▲▲▲▲	▲▲▲▲▲	▲▲▲▲▲	▲▲▲▲▲	▲▲▲▲▲
CPS IDIQ Production		▲	▲▲▲▲▲	▲▲▲▲▲	▲▲▲▲▲	
Technical Insertion:						
CDS PDR		◇		◇		◇
CDS SRR	◇		◇		◇	
CDS CDR				◇		◇
CPS PDR				◇		◇
CPS SRR				◇		◇
CPS CDR				◇		◇
Test & Evaluation						
CPS EQT	▽▽					

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy		DATE: February 2010
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
CDS IDIQ Production	1	2010	4	2015
Technical Insertion CDS PDR	3	2010	3	2014
Technical Insertion CDS SRR	2	2010	2	2014
Technical Insertion CDS CDR	4	2010	4	2014
CPS TRR	2	2010	2	2010
CPS EQT	2	2010	3	2010
CPS PRR	4	2010	4	2010
CPS IDIQ Production	4	2010	4	2014
Technical Insertion CPS PDR	4	2012	4	2014
Technical Insertion CPS SRR	4	2012	4	2014
Technical Insertion CPS CDR	4	2012	4	2014

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