

**CLASSIFICATION:**

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**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:**

The Avionics Component Improvement Program (AvCIP) develops, integrates and tests solutions for critical reliability, obsolescence and capability deficiencies in Navy in-service avionics/electronics systems. Transfer in FY 2007 and out as documented in PE 0604215N, Standards Development, Project Unit 0572.

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**Exhibit R-2, RD TEN Budget Item Justification**  
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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2006</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0702239N, Avionics Component Improvement Program				PROJECT NUMBER AND NAME 3170, Avionics Component Improvement Program			
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost				1.375	1.625	1.877	2.882	3.889
RDT&E Articles Qty								

### A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Avionics Component Improvement Program (AvCIP) provides design and development, test and evaluation, and integration support to resolve reliability, obsolescence, and capability deficiencies of in-service Navy avionics systems. Funds are competitively allocated across multi-platform commodity and platform-specific projects with the objective of maintaining Avionics systems effectiveness at levels required to ensure mission success. AvCIP has been endorsed by the OSD Business Initiatives Council (BIC) as a cooperative tri-service program that adopts the better business practices and proven resourcing models of the Engine CIP. Resources are directed just prior to the execution year, allowing funds to address the most current fleet issues and accelerate solution fielding. Lack of out-year deliverable specificity is mitigated through definition of Avionics capability evolution in the Core Avionics Master Plan. Although Avionics association to digital technology brings challenges to keep pace with Moore's Law and stay ahead of obsolescence, it also affords significant opportunity to reap benefits of emerging advancements. Conversion of legacy systems from analog to digital components has consistently resulted in reliability gains that significantly reduce maintenance/repair activity/costs, save weight and space, and increase operational availability. Modern open system architecture technology insertion improves system upgradeability, by reducing integration time and cost. Avionics systems are the vehicles that enable platform connectivity and interoperability. AvCIP will help platforms integrate the modern technology that will allow them to keep pace with the rapid evolution of transformational network centric operations development. AvCIP also provides sponsors a vehicle to address unanticipated performance issues or critical changes in threat, tactics or operational demands revealed during deployment without disrupting program budget profiles designed for other purposes. AvCIP is designed to support manned and unmanned, common and unique, fixed and rotary wing aircraft electronics systems, including communications, navigation, surveillance, sensors, combat identification, civil interoperability, safety, mission data processing and display, and network connectivity equipment. Initiative selection is based upon analysis of operational priority, performance improvement, capability benefit, scope of applicability across fleet platform or weapon system inventory, technical risk, delivery time, cost and life cycle return on investment. Transfer in FY 2007 and out as documented in PE 0604215N, Standards Development, Project Unit 0572.

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EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>February 2006</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0702239N, Avionics Component Improvement Program	PROJECT NUMBER AND NAME 3170, Avionics Component Improvement Program	
<b>B. Accomplishments/Planned Program</b>			
	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost			1.375
RDT&E Articles Quantity			
<b>Investigate High Value Return on Investment Candidates</b> Investigate High Value Return on Investment Candidates, addressing emergent avionics component critical readiness degraders and transformational upgrade opportunities. Prioritize critical avionics performance, capability and obsolescence problems that require immediate attention. Pursue solutions to these problems based upon urgency, warfighting contribution and return on investment. Develop and test system solutions based on priority. Resources will cover program management, engineering, contracting and logistics efforts; design and development, logistics elements such as technical data, support equipment, provisioning, and training; prototypes; platform integration; and developmental/ operational testing.			

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EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>February 2006</b>																																																				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0702239N, Avionics Component Improvement Program	PROJECT NUMBER AND NAME 3170, Avionics Component Improvement Program																																																				
<p><b>C. PROGRAM CHANGE SUMMARY:</b></p> <table style="width: 100%; border-collapse: collapse;"><thead><tr><th style="text-align: left; width: 40%;"></th><th style="text-align: right; width: 15%;">FY 05</th><th style="text-align: right; width: 15%;">FY 06</th><th style="text-align: right; width: 15%;">FY 07</th></tr></thead><tbody><tr><td>Funding:</td><td></td><td></td><td></td></tr><tr><td>Previous President's Budget:</td><td style="text-align: right;">0.000</td><td style="text-align: right;">0.000</td><td style="text-align: right;">0.000</td></tr><tr><td>Current BES/President's Budget</td><td style="text-align: right;">0.000</td><td style="text-align: right;">0.000</td><td style="text-align: right;">1.375</td></tr><tr><td>Total Adjustments</td><td style="text-align: right; border-top: 1px solid black;">0.000</td><td style="text-align: right; border-top: 1px solid black;">0.000</td><td style="text-align: right; border-top: 1px solid black;">1.375</td></tr><tr><td colspan="4" style="padding-top: 10px;">Summary of Adjustments</td></tr><tr><td>    Congressional Reductions</td><td></td><td></td><td></td></tr><tr><td>    Congressional Rescissions</td><td></td><td></td><td></td></tr><tr><td>    Congressional Undistributed Reductions</td><td></td><td></td><td></td></tr><tr><td>    Congressional Increases</td><td></td><td></td><td></td></tr><tr><td>    Economic Assumptions</td><td></td><td></td><td style="text-align: right;">0.008</td></tr><tr><td>    Miscellaneous Adjustments</td><td></td><td></td><td style="text-align: right;">-0.133</td></tr><tr><td>    Subtotal</td><td style="text-align: right; border-top: 1px solid black;">0.000</td><td style="text-align: right; border-top: 1px solid black;">0.000</td><td style="text-align: right; border-top: 1px solid black;">-0.125</td></tr></tbody></table> <p style="margin-top: 20px;">Schedule:</p> <p style="margin-left: 20px;">Not Applicable.</p> <p style="margin-top: 20px;">Technical:</p> <p style="margin-left: 20px;">Not Applicable.</p>				FY 05	FY 06	FY 07	Funding:				Previous President's Budget:	0.000	0.000	0.000	Current BES/President's Budget	0.000	0.000	1.375	Total Adjustments	0.000	0.000	1.375	Summary of Adjustments				Congressional Reductions				Congressional Rescissions				Congressional Undistributed Reductions				Congressional Increases				Economic Assumptions			0.008	Miscellaneous Adjustments			-0.133	Subtotal	0.000	0.000	-0.125
	FY 05	FY 06	FY 07																																																			
Funding:																																																						
Previous President's Budget:	0.000	0.000	0.000																																																			
Current BES/President's Budget	0.000	0.000	1.375																																																			
Total Adjustments	0.000	0.000	1.375																																																			
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Miscellaneous Adjustments			-0.133																																																			
Subtotal	0.000	0.000	-0.125																																																			

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EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2006</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>		PROGRAM ELEMENT NUMBER AND NAME 0702239N, Avionics Component Improvement Program			PROJECT NUMBER AND NAME 3170, Avionics Component Improvement Program				

**D. OTHER PROGRAM FUNDING SUMMARY:**

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
0604215N, Standards Development, PU 0572	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000
0702239A (Avionics Component Improvement Program, Army)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	7.000
0702239F (Avionics Component Improvement Program, Air Force)									

Transfer in FY 2007 and out as documented in PE 0604215N, Standards Development, Project Unit 0572.

**E. ACQUISITION STRATEGY:**

The Avionics Component Improvement Program (AvCIP) will annually compete candidate solutions according to criticality of operational contribution, technical risk, return on investment, and breadth of application. OPNAV N78 & N43, NAVAIR, NAVICP and the Fleet will participate in project selection for execution year allocation. The AvCIP IPT will monitor project execution and track return on investment using N43 Flying Hour Program metrics. Modification solutions include modular hardware, software and material upgrades. Resources will cover program management, engineering, contracting and logistics efforts; design and development, logistics elements such as technical data, support equipment, provisioning, and training; prototypes; platform integration; and developmental/ operational testing.

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**CLASSIFICATION:**

Exhibit R-3 Cost Analysis (page 1)								DATE: <b>February 2006</b>				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>			PROGRAM ELEMENT 0702239N, Avionics Component Improvement Program			PROJECT NUMBER AND NAME 3170, Avionics Component Improvement Program						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering											0.000	
Training Development											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Development Support											0.000	
Software Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
Studies & Analyses	Various	Various						0.875	11/06	Continuing	Continuing	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			0.000	0.000		0.000		0.875		Continuing	Continuing	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: <b>February 2006</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDTE&amp;E, N / BA-7</b>			PROGRAM ELEMENT 0702239N, Avionics Component Improvement Program			PROJECT NUMBER AND NAME 3170, Avionics Component Improvement Program						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation											0.000	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	WX	NAWCAD, Patuxent River						0.480	11/06	Continuing	Continuing	
Travel	TO	NAVAIRHQ, Patuxent River, MD						0.020	11/06	Continuing	Continuing	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			0.000	0.000		0.000		0.500		Continuing	Continuing	
Remarks:												
Total Cost			0.000	0.000		0.000		1.375		Continuing	Continuing	
Remarks:												

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\*More specific program schedules will be provided once high value return on investment candidates have been selected.

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Exhibit R-4a, Schedule Detail						DATE:		
						<b>February 2006</b>		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME		
<b>RDT&amp;E, N / BA-7</b>		0702239N, Avionics Component Improvement Program				3170, Avionics Component Improvement Program		
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
FY07 AvCIP Candidate Collection			2Q-3Q					
FY07 AvCIP Candidate Evaluation			3Q					
FY07 AvCIP Candidate Prioritization			3Q					
FY07 AvCIP Candidate Endorsement			4Q					
FY07 AvCIP Project Selection			4Q					
FY07 AvCIP Funding Allocation				1Q				
FY08 AvCIP Candidate Collection				2Q-3Q				
FY08 AvCIP Candidate Evaluation				3Q				
FY08 AvCIP Candidate Prioritization				3Q				
FY08 AvCIP Candidate Endorsement				4Q				
FY08 AvCIP Project Selection				4Q				
FY08 AvCIP Funding Allocation					1Q			
FY09 AvCIP Candidate Collection					2Q-3Q			
FY09 AvCIP Candidate Evaluation					3Q			
FY09 AvCIP Candidate Prioritization					3Q			
FY09 AvCIP Candidate Endorsement					4Q			
FY09 AvCIP Project Selection					4Q			
FY09 AvCIP Funding Allocation						1Q		
FY10 AvCIP Candidate Collection						2Q-3Q		
FY10 AvCIP Candidate Evaluation						3Q		
FY10 AvCIP Candidate Prioritization						3Q		
FY10 AvCIP Candidate Endorsement						4Q		
FY10 AvCIP Project Selection						4Q		
FY10 AvCIP Funding Allocation							1Q	
FY11 AvCIP Candidate Collection							2Q-3Q	
FY11 AvCIP Candidate Evaluation							3Q	
FY11 AvCIP Candidate Prioritization							3Q	
FY11 AvCIP Candidate Endorsement							4Q	
FY11 AvCIP Project Selection							4Q	
FY11 AvCIP Funding Allocation								1Q
PROGRAM EXECUTION				1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q

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