CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification				DATE:				
				May 2009				
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /		**BA-7**		0702239N, AVIONICS COMPONENT IMPROVEMENT PROGRAM				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010					
Total PE Cost	**1.588**	**1.871**	**2.725**					
3170 AVIONICS COMPONENT IMPROVEMENT PROGRAM	**1.588**	**1.871**	**2.725**					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
The Avionics Component Improvement Program (AvCIP) develops, integrates and tests solutions to address critical readiness and reliability deficiencies, obsolescence, loss of sustainability, and top repair cost drivers in Navy in service avionics systems. Project candidates are collected from across all platforms, reviewed, competed and selected in the year prior to funding allocation.

R-1 SHOPPING LIST - Item No. 215

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification	DATE:	
	May 2009	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7	0702239N, AVIONICS COMPONENT IMPROVEMENT PROGRAM	

B. PROGRAM CHANGE SUMMARY:

Funding:	FY08	FY09	FY10
FY09 President's Budget:	1.600	1.877	2.755
FY10 President's Budget:	1.588	1.871	2.725
Total Adjustments	-0.012	-0.006	-0.030

Summary of Adjustments

	FY08	FY09	FY10
Congressional Rescissions			
Congressional Adjustments		-0.001	
SBIR/STTR/FTT Assessments	-0.012		
Program Adjustments			-0.029
Rate/Misc Adjustments		-0.005	-0.001
Subtotal	-0.012	-0.006	-0.030

Schedule:

Selection of two (2) projects in FY07:
Project Unit 07A. EA-6B TACAN Modification. Testing May 08. Qualification Sep 08.
Project Unit 07B.   F/A-18E/F Radar Altimeter Shock Mount. Design Review Jun 08. Testing Aug 08. Qualification Sep 08.

Selection of three (3) projects in FY08:
Project Unit 08A. Naval Aircrew Common Ejection Seat (NACES) Sequencer. Contract award Jan 08. Design Review Mar 08. Testing Jun 08. Qualification and Field solution Sep 08.
Project Unit 08B. E-2 APS-145 Radar Radio Frequency Power Meter. Contract award Jan 08. Design Review Jun 08. Testing Oct 08. Qualification Dec 08.
Project Unit 08C. APN-171 Radar Altimeter Single Card Altimeter. Contract award Jul 08. Design Review Mar 09. Does not require Testing. APN-171 Radar Altimeter Single Card Altimeter was dropped due to lack of procurement follow-on. Standard Central Air Data Computer (SCADC) Testbench Redesign was chosen to take the place of the APN-171 Radar Altimeter.   SCADC Government Testbench Redesign will begin 3Q FY08. Testing 2Q FY09 and Qualification 3Q FY09.

Technical:

  Not Applicable

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification				DATE: **May 2009**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT NUMBER AND NAME 0702239N, AVIONICS COMPONENT IMPROVEMENT PROGRAM			PROJECT NUMBER AND NAME 3170, AVIONICS COMPONENT IMPROVEMENT PROGRAM (AvCIP)			
COST ($ in Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	1.588	1.871	2.725				
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 critical readiness and reliability deficiencies, obsolescence, loss of sustainability and top repair cost drivers 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 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. In FY 2007, AVCIP transferred from Standards Development, PE 0604215N, Project Unit 0572.

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UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT NUMBER AND NAME 0702239N, AVIONICS COMPONENT IMPROVEMENT PROGRAM	PROJECT NUMBER AND NAME 3170, AVIONICS COMPONENT IMPROVEMENT PROGRAM (AvCIP)

B. Accomplishments/Planned Program

Addresses Avionics Critical Readiness	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	1.588	1.871	2.725	
RDT&E Articles Quantity				

Investigate High Value Return on Investment Candidates, addressing avionics critical readiness and reliability deficiencies, obsolescence, loss of sustainability and top repair cost drivers. 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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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	0702239N, AVIONICS COMPONENT IMPROVEMENT PROGRAM	3170, AVIONICS COMPONENT IMPROVEMENT PROGRAM (AvCIP)

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2008	FY 2009	FY 2010
APN Line Item 057700, Common Avionics, AVCIP		2.000	2.000
0702239A, Avionics Component Improvement Program, Army			
0702239F, Avionics Component Improvement Program, Air Force			

D. 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 N88 & 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 Fleet supply and component performance tracking systems (Snapshot, NALCOMIS, NALDA, LMDS/Deckplate, VAMOSC). Demonstrated Fleet operation/sustainment cost avoidances will be coordinated with N43 Flying Hour Program. 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: **May 2009**					
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**			PROGRAM ELEMENT 0702239N, AVIONICS COMPONENT IMPROVEMENT PROGRAM				PROJECT NUMBER AND NAME 3170, AVIONICS COMPONENT IMPROVEMENT PROGRAM (AvCIP)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date						
Primary Hardware Development	Various	Various	1.427										
Ancillary Hardware Development	TBD	TBD				0.525	03/10						
Aircraft Integration	TBD	TBD	0.457			0.500	03/10						
Ship Integration													
Ship Suitability													
Systems Engineering	WX	NAWCAD, PAX RIVER MD				0.350	03/10						
Training Development													
Licenses													
Tooling													
GFE													
Award Fees													
Subtotal Product Development			1.884	0.000		1.375							
Remarks:													
Development Support		TBD				0.300	03/10						
Software Development													
Integrated Logistics Support	WX	NAWCWD, PT MUGU, CA		0.111	11/08								
Integrated Logistics Support	WX	NAWCAD, PAX RIVER MD	0.132										
Configuration Management													
Technical Data													
Studies & Analyses	WX	NAWCAD, PAX RIVER MD		1.760	01/09	0.269	03/10						
Studies & Analyses													
GFE													
Award Fees													
Subtotal Support			0.132	1.871		0.569							
Remarks:													

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)							DATE: **May 2009**				
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**			PROGRAM ELEMENT 0702239N, AVIONICS COMPONENT IMPROVEMENT PROGRAM				PROJECT NUMBER AND NAME 3170, AVIONICS COMPONENT IMPROVEMENT PROGRAM (AvCIP)				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date				
Developmental Test & Evaluation	WX	NAWCAD Patuxent River MD				0.230	11/09				
Operational Test & Evaluation											
Live Fire Test & Evaluation											
Test Assets											
Tooling											
GFE											
Award Fees											
Subtotal T&E			0.000	0.000		0.230					
Remarks:											
Contractor Engineering Support	VARIOUS	VARIOUS	0.072								
Government Engineering Support	WX	NAWCAD Patuxent River MD	0.500			0.250	11/09				
Program Management Support	WX	NAWCAD, Patuxent River MD	0.208			0.301	11/09				
Travel											
Transportation											
SBIR Assessment											
Subtotal Management			0.780	0.000		0.551					
Remarks:											
Total Cost			2.796	1.871		2.725					
Remarks:											

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CLASSIFICATION:

EXHIBIT R4, Schedule Profile		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0702239N, AVIONICS COMPONENT IMPROVEMENT PROGRAM	PROJECT NUMBER AND NAME 3170, AVIONICS COMPONENT IMPROVEMENT PROGRAM

Fiscal Year	FY 2008				FY 2009				FY 2010																
	1	2	3	4	1	2	3	4	1	2	3	4													

Management Milestones — FY09 AvCIP CYCLE — FY10 AvCIP CYCLE — FY11 AvCIP CYCLE

- Funding Allocation
- Candidate Collection
- Candidate Evaluation
- Candidate Prioritization & Selection
- Candidate Endorsement
- Contract Establishment

Selected AvCIP Projects

- 07A EA-6B TACAN Modification — Design Review — Test — Qual
- 07B F/A-18 Radar Altimeter Shock Mount — Design Review — Test — Qual
- 08A NACES Sequencer — CA — Design Review — Test — Qual & Field
- 08B E-2C APS-145 Pwr Mtr Radar Radio Frequency — CA — Design Review — Test — Qual
- 08C SCADC Testbench Redesign — SCADC GOV Testbench — Design Review — Qual

CLASSIFICATION:

Exhibit R-4a, Schedule Detail				DATE: May 2009				
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT 0702239N, AVIONICS COMPONENT IMPROVEMENT PROGRAM			PROJECT NUMBER AND NAME 3170, AVIONICS COMPONENT IMPROVEMENT PROGRAM				
Schedule Profile	FY 2008	FY 2009	FY 2010					
AvCIP Funding Allocation	1Q	1Q	1Q					
AvCIP Candidate Collection	1Q-2Q	1Q-2Q	1Q-2Q					
AvCIP Candidate Evaluation	2Q-3Q	2Q-3Q	2Q-3Q					
AvCIP Candidate Prioritization & Selection	3Q	3Q	3Q					
AvCIP Candidate Endorsement	3Q	3Q	3Q					
AvCIP Project Contract Establishment	3Q-4Q	3Q-4Q	3Q-4Q					
Selected Projects Schedule Profiles								
07A EA-6B TACAN Mod								
Contract Award (CA)								
Design/Test	3Q							
Qualification	4Q							
07B F/A-18 Radar Altimeter Mod								
Contract Award (CA)								
Design/Test	3Q							
Qualification	4Q							
08A NACES Sequencer Test Bench								
Contract Award (CA)	2Q							
Design/Test	2Q-3Q							
Qualification	4Q							
08B E-2C APS-145 Radar Power Meter Radar Radio Frequency								
Contract Award (CA)	2Q							
Design/Test	3Q-4Q	1Q						
Qualification		1Q						
08C SCADC Testbench Redesign								
SCADC GOV Testbench	3Q							
Design Review		2Q						
Qualification		3Q						