EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7						R-1 ITEM NOMENCLATURE 0205633N, AVIATION IMPROVEMENTS		
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Total PE Cost	97.012	117.805	122.906	105.116	95.090	75.958	77.469	
0601 ACFT HANDLING & SERVICE EQUIPMENT	2.517	2.909	3.236	3.307	3.386	3.457	3.532	
0852 CONSOLIDATION AUTOM SPT SYS	7.681	6.670	8.956	9.098	9.289	7.453	7.615	
1041 ACFT EQ REPL/MAINT PROG	2.966	2.198	3.750	3.837	3.917	4.001	4.083	
1355 A/C ENG COMP IMP (CIP)	57.370	56.379	59.963	59.246	60.410	60.945	62.093	
3189 DIGITAL I-TER	10.263	4.277	*	*				
3190 MULTI-PURPOSE BOMB RACKS		26.095	47.001	29.628	18.088	.102	.146	
9999 CONGRESSIONAL ADDS	16.215	19.277						

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Project 0601 - Common Ground Equipment is a Naval Aviation Project to apply new technology to common support equipment necessary to support multiple aircraft. Project 0852 - Consolidated Automated Support System (CASS) is a standardized Automated Test Equipment (ATE) with computer assisted, multi-function capabilities to support the maintenance of aircraft subsystems and missiles. Project 1041 - Aircraft Equipment Reliability/Maintainability Improvement Program (AERMIP) is the only Navy program that provides engineering support for in-service out-of-production aircraft equipment, and provides increased readiness at reduced operational and support cost. Project 1355 - Aircraft Engine Component Improvement Program (CIP) develops reliability and maintainability (R&M) and safety enhancements for in-service Navy aircraft engines, transmissions, propellers, starters, auxiliary power units, electrical generating systems, fuel systems, fuels, and lubricants. Project 3189 - Digital I-TER will develop an increased capability to the existing BRU-42 Improved Triple Ejector Rack (ITER) for the AV-8B. Project 3190 is the Multi-Purpose Bomb Rack (MPBR). The MPBR will replace the BRU-41/41/42/33/55 and provide use for both tactical and training stores on one common rack. The MPBR will be integrated on the F/A-18A+/C/D and F/A-18E/F as part of this project.
Project 9999 is Congressional Adds.

* FY 2009 and FY 2010 funds realigned to PE 0604214N, Project 2634.
FY2007 funding total includes $ 10.9M received in GWOT supplemental.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2007	FY 2008	FY 2009
FY 2008 President's Budget:	98.324	100.284	108.840
FY 2009 President's Budget:	97.012	117.805	122.906
Total Adjustments	-1.312	17.521	14.066
Summary of Adjustments			
Congressional Reductions			
Congressional Rescissions			
Congressional Undistributed Reductions	-1.658	-1.879	
Congressional Increases	0.500	19.400	
Economic Assumptions			-0.348
Miscellaneous Adjustments	-0.154		14.414
Subtotal	-1.312	17.521	14.066

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7	R-1 ITEM NOMENCLATURE 0205633N, AVIATION IMPROVEMENTS

Schedule:Project 0601 -The Turboprop Engine Instrumentation (TETI) Team conducted a technology assessment of TETI requirements compared to the existing Shaft Engine TestInstrumentation(SETI) Engine Test System capability and determined that the SETI System met all data acquisition, test and measurement requirements of TETI. Therefore the decision was made to utilize the SETI hardware for the TETI Program and develop the Test Program Set (TPS) software for each turboprop engine variant utilizing in-house engineering at NAVAIR Lakehurst. This technology assessment and decision process to use SETI and develop TPS's in-house caused the two quarter slip in the TETI schedule. However, this acquisition strategy is expected to yield cost savings and a reduction in the TETI schedule going forward, by eliminating the contracting process and contractor monitoring required for development of TETI and each TPS.

Project 0601: TETI elimintation of Acquisition Milestones B and C, and the change to a developmental ECP. During the TETI requirements technology assessment that was conducted in FY07, it was determined that the existing SETI Engine Test System hardware would meet the data acquisition, test and measurement requirements of TETI. Therefore, an ECP development effort is being conducted to implement TETI. The development of the Test Program Set (TPS) software for each turboprop engine variant and any additional hardware will be accomplished utilizing in-house engineering at NAVAIR Lakehurst.

Due to the anticipated complexity of the Next Generation Munitions Handler (NGMH), and the potential for the production contract award going to a different contractor than the original developer (Foster Miller Corporation), additional time was incorporated into the schedule to require the production contractor to build and successfully performance test several LRIP units before Full Rate Production (FRP) is initiated. This additional schedule time lowers risk to the program and postpones the FRP by one quarter.

Project 0852 - Schedule change to better leverage the Agile Rapid Global Combat Support (ARGCS) ACTD Technology.

Project 1041 - The embedded fire bottle condition sensor project encountered a slight schedule slippage, so the funding/planning was extended two quarters into FY08 to accommodate work that the fleet support teams will accomplish. Other schedule changes due to maturation of several programs and several new start efforts.

Project 1355 - Not Applicable

Project 3189 - Digital-ITER milestone schedule has changed due to the realignment of funds to the AV-8B program (PE 0604214N, Project 2634). The Digital-ITER program funds development efforts to upgrade the bomb rack. Due to the changes in acquisition strategy the funding realigned to the AV-8B program is for hardware development and integration efforts.

Project 3190 - The Multi Purpose Bomb Rack (MPBR) is designated as a "new start" program for FY2008. Due to the delays encountered with the passing of the FY2008 Authorization Bill, the MPBR program was not able to initate required tasks to meet the previously identified Milestones, the release of the RFI which would evaluate proposals for the selection of a contractor for the development phase of the program. Subsequently, MS B, the start of the development phase and other critical events have been delayed. The program is currently maintaining the timelines for the completion of these phases and MS C as initially indicated.

Technical: Not Applicable

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS	PROJECT NUMBER AND NAME 0601, COMMON GROUND EQUIPMENT	

COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
0601 COMMON GROUND EQUIPMENT	2.517	2.909	3.236	3.307	3.386	3.457	3.532	
RDT&E Articles Qty	3	2	3	3	3	3	3	

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Common Ground Equipment is a Naval Aviation project to apply new technology to common support equipment necessary to support multiple systems/aircraft within the Navy. The common support equipment items developed with this budget are briefed to the Air Force, Army and Coast Guard for possible use in joint procurement in the production phase.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Next Generation Munitions Handler (NGMH)	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	1.182	1.423	0.507
RDT&E Articles Qty	1	1	1

R&D program to develop robotic weapons loader for both ship and shore with primary focus on targeting future weapons and aircraft. Plan is to support CVN 21 initiatives and to back-fit current CVNs and amphibious ships with technology features developed under NGMH program. One lab protoype will upload/download munitions in support of sea-based aviation, specifically the CVN-21 environment. It will be a self-powered diesel/electric unit with human amplification technology. Newly developed high-torque electric actuator/motors will provide the robotics. Variable geometry lonator wheels will provide the mobility for the vehicle. Self diagnostics for maintenance analysis will be included for the design.

Turboprop Engine Test Instrumentation (TETI)	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.835	1.486	2.379
RDT&E Articles Qty	1	1	1

The Turboprop Engine Test Instrumentation (TETI) program objective is to provide an integrated computer based measurement and automation system for Intermediate Maintenance level testing of Navy/Marine Turboprop engines. The acquistion approach is to develop, acquire, validate, deploy and support production configurations of TETI and Test Program Sets (TPS), utilizing the existing Jet Engine Test Initiative (JETI) technology, and integrate this capability into existing land based engine test systems. This enhanced capability will allow for full performance engine testing of the T56 Series Turboprop engines. An ECP will be developed to upgrade the existing engine test systems.

Shipboard Firefighting Vehicle (SFV)	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost			0.350
RDT&E Articles Qty			1

The Shipboard Firefighting Vehicle (SFV) program objective is to provide a safe reliable and maintainable way to support air capable ships with flight deck fire suppression during flight operations. The acquistion approach is to develop, acquire, validate, deploy and support production utilizing the lessons learned from the current firefighting vehicle and new emerging technology. This will enable integration of this capability into a new firefighting vehicle, which will be fully capable to support the current and future flight deck fire suppression missions.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS	PROJECT NUMBER AND NAME 0601, COMMON GROUND EQUIPMENT

Expeditionary Airfields	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	0.500		
RDT&E Articles Qty	1		

Expeditionary Airfields - Per Correlation Forces Land Component Command (CFLCC), Aviation Safety Alert Document Number 06-024 (Aircraft Grounding and Mooring) all aircraft deployed in the (CFLCC) area of responsibility parked outside of a hanger must be grounded and moored. An urgent Univeral needs statement has been submitted by forces forward requiring capability to both tie-down and ground aircraft at all bed-down locations in Iraq. Capability to install tie-downs on surfaces other than AM-2 Matting does not exist within the Marine Air Group Task Force. Grounding capabilities do exist. Therefore, there is a requirement to develop an aircraft tie-down and grounding capability in support of Global War on Terror. Aircraft and personnel, and all other deployable aviation units, will be susceptible to damage due to high-winds, microbursts, rotor wash, lighting strikes and static electricity thus potentially resulting in the loss of aircraft and personnel and directly impacting the Marine Expeditionary Airfields' ability to project aviation combat power to its fullest capability.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
APN 070500 Ground Support Equipment	165.849	167.933	162.389	162.595	163.811	152.991	152.553		1,128.121

Related RDT&E: Not Applicable

D. ACQUISITION STRATEGY:
This is a non-ACAT program. Field activities propose tentative RDT&E projects. Internal panel merits and selects projects. Field activities develop projects and submit results. Operational Advisory Group (OAG) process selects projects to transition to procurement.

Exhibit R-3 Cost Analysis (page 1)											DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 0601, COMMON GROUND EQUIPMENT						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Primary Hdw Development (AC/SC)	TBD	TBD								5.975	5.975	
Primary Hdw Development-NGMH	C-CPFF	FOSTER-MILLER, INC, WALTHAM, MA	5.323	.800	3/31/2007	1.172	3/31/2008	.250	3/31/2009		7.545	7.545
Primary Hdw Development-SFV	C-CPFF	TBD								5.922	5.922	
Primary Hdw Development-TETI	VARIOUS	VARIOUS		.500	3/31/2007	1.136	3/31/2008	2.020	3/31/2009		3.656	3.656
Primary Hdw Development-TETI	VARIOUS	VARIOUS	.566								.566	.566
Systems Eng (AC/SC)	WX	NAWCAD, LAKEHURST NJ								1.024	1.024	
Systems Eng-SFV	WX	NAWCAD, LAKEHURST NJ						.350	3/31/2009	.761	1.111	1.111
Systems Eng-TETI	WX	NAWCAD, LAKEHURST NJ		.335	3/31/2007	.350	3/31/2008	.359	3/31/2009		1.044	1.044
SUBTOTAL PRODUCT DEVELOPMENT			5.889	1.635		2.658		2.979		13.682	26.843	

Remarks:

SUPPORT												
Develop Support Equip-NGMH	WX	VARIOUS	.069								.069	.0691
Develop Support Equip-NGMH	C-CPFF	NAWCAD, LAKEHURST NJ	7.274	.382	VARIOUS	.251	VARIOUS	.257	VARIOUS		8.164	8.164
SUBTOTAL SUPPORT			7.343	.382		.251		.257			8.233	

Remarks:

TEST & EVALUATION												
TEST & EVALUATION - EA	WX	NAWCAD, LAKEHURST NJ		.500	VARIOUS						.500	.500
SUBTOTAL TEST & EVALUATION				.500							.500	

Remarks:

MANAGEMENT												
SUBTOTAL MANAGEMENT												

Remarks:

Total Cost			13.232	2.517		2.909		3.236		13.682	35.576	

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

DATE: February 2008

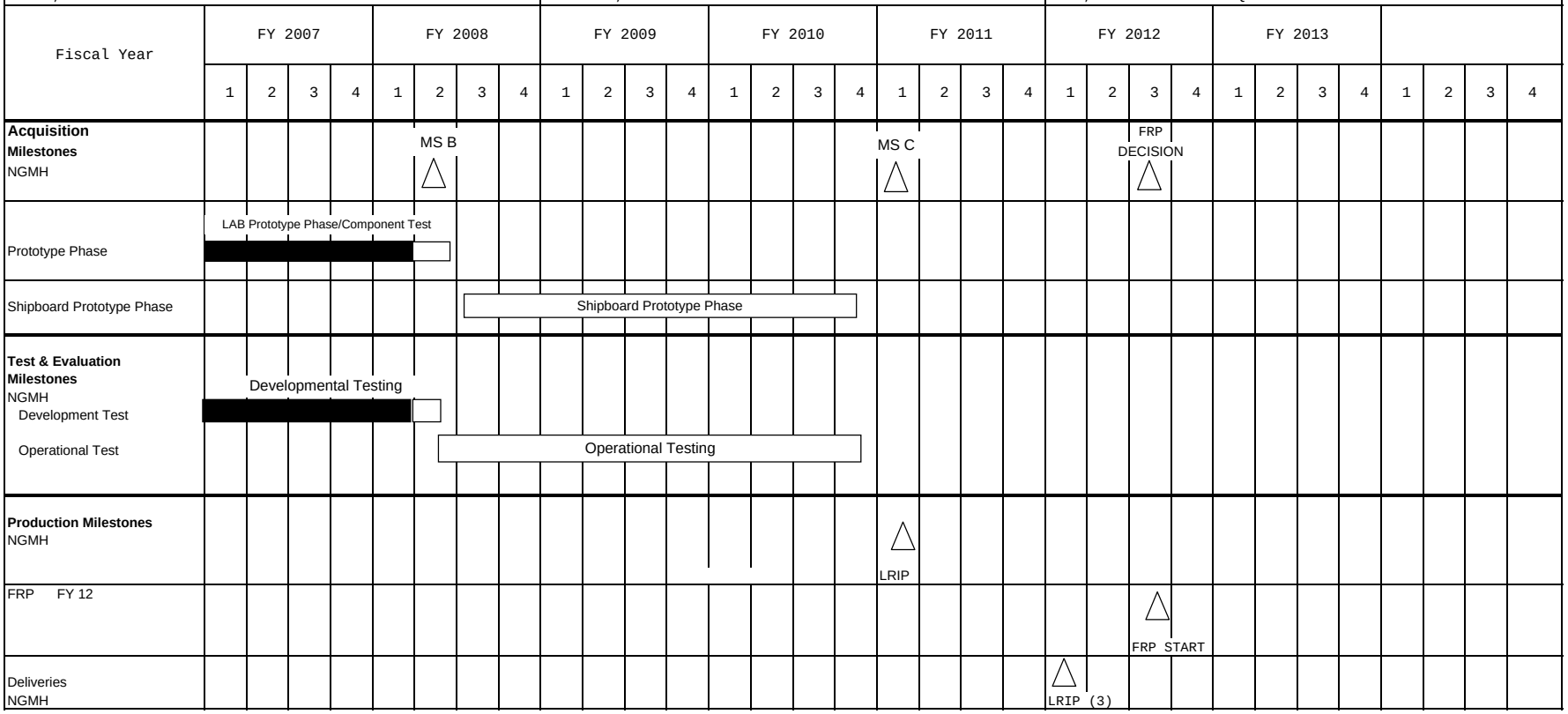
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E,N / BA-7	0205633N, AVIATION IMPROVEMENTS	0601, COMMON GROUND EQUIPMENT

Fiscal Year	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones TETI			ECP START △										ECP COMPLETE △		FRP DECISION △																	
Prototype Phase				ECP (TPS & Associated HW Development)																												
Radar System Development																																
EDM Radar Delivery																																
Software 1XXSW Delivery 2XXSW Delivery																																
Test & Evaluation Milestones TETI Development Test				Developmental Testing																												
Operational Test									Operational Testing																							
Production Milestones TETI																																
FRP															FRP Start △																	
Deliveries																																

CLASSIFICATION:

EXHIBIT R4, Schedule Profile — DATE: February 2008

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E,N / BA-7	0205633N, AVIATION IMPROVEMENTS	0601, COMMON GROUND EQUIPMENT



CLASSIFICATION:

EXHIBIT R4, Schedule Profile																															DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7									PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS												PROJECT NUMBER AND NAME 0601, COMMON GROUND EQUIPMENT											
Fiscal Year	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones SFV									MS B △														MS C △									
Prototype Phase									Prototype Phase																							
Test & Evaluation Milestones SFV Development Test														Developmental Testing																		
Operational Test																	Operational Testing															
Production Milestones SFV (P-25 REP)																									△ LRIP							
FRP																											△ FRP START					
Deliveries SPV																																

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 0601, COMMON GROUND EQUIPMENT			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Schedule Profile - TETI (ECP DEV)								
ECP DEV	4Q	1Q-4Q	1Q-4Q	1Q				
TPS & Hardware	4Q							
Developmental Testing	4Q	1Q-4Q						
Operational Testing		4Q	1Q-4Q					
Full Rate Production Decision				3Q				
Full Rate Production Start				4Q				
Schedule Profile - NGMH								
Prototype Phase	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q				
Milestone B		2Q						
Developmental Testing	1Q-4Q	1Q-2Q						
Milestone C (MS C)					1Q			
Operational Testing		2Q-4Q	2Q-4Q	1Q-4Q				
Start Low-Rate Initial Production I (LRIP I)					1Q			
Low-Rate Initial Production I Delivery						1Q		
Full Rate Production Decision						3Q		
Full Rate Production Start						3Q		
Schedule Profile - SFV								
Prototype Phase			1Q-4Q	1Q-4Q	1Q-4Q			
Milestone B			1Q					
Developmental Testing				2Q-4Q	1Q-2Q			
Milestone C (MS C)						4Q		
Operational Testing				4Q	1Q-4Q	1Q-3Q		
Start Low-Rate Initial Production I (LRIP I)							1Q	
Low-Rate Initial Production I Delivery								
Full Rate Production Decision								
Full Rate Production Start							4Q	

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS	PROJECT NUMBER AND NAME 0852, CONSOLIDATION AUTOM SPT SYS	

COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
0852 CONSOLIDATION AUTOM SPT SYS	7.681	6.670	8.956	9.098	9.289	7.453	7.615	
RDT&E Articles Qty	3	3	2	2	2	2	2	

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
The Consolidated Automated Support System (CASS) project designs and develops modular automated test equipment with computer-assisted, multi-function test capability, standardized hardware, and standard software elements. CASS responds to Fleet Commanders' expressed requirements to correct serious deficiencies in existing automatic test equipment. Program objectives are: (1) increase material readiness; (2) reduce life cycle costs; (3)improve tester sustainability at depot and intermediate maintenance levels; (4) reduce proliferation of unique test equipment, and (5) provide test capability for existing and emerging avionics/electronics systems.
Technologies being developed include synthetic instruments, new Advanced Targeting Forward Looking Infrared (ATFLIR) electro-optics capability, multi-analog test capability to enable functional testing, and CASS station modernization elements.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

CASS Station Upgrades	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.181	.200	.200
RDT&E Articles Qty	1	1	1

Provides technologies for upgrading CASS station test to test emerging weapon system requirements. Includes development of new test capability and extending existing test range accuracies in the time and frequency domains to support low-frequency analog/digital,electro-optic, and radio frequency (RF) systems.

Electro-Optic Capability	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.756	.319	
RDT&E Articles Qty	1	1	

Develops a downsized electro-optic support system to enable Reconfigurable Transportable CASS (RTCASS) to provide support for Marine Air FLIR and LASER Targeting systems.

CASS Modernization Development	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	6.744	6.151	8.756
RDT&E Articles Qty	1	1	1

Develops and integrates the technologies that will comprise the Modernization Program for the early lots of CASS stations which will be modernized and updated to current testing technologies while maintaining full compatibility with the legacy test program sets. Technologies include: downsized and scalable packaging techniques, multi-lingal runtime capability, interoperability framework and architectures, diagnostics data handling, virtual/synthetic/next-generation instrument concepts and the Agile Rapid Global Combat Support (ARGCS) Advanced Concept Technologies. (ACTD).

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Complete	Cost
APN 070500 CASS	76.504	81.692	81.789	82.247	84.104	103.758	109.609		619.703
Related RDT&E: Not Applicable									

D. ACQUISITION STRATEGY:
Formal test technology reviews with industry are conducted annually (cooperative Joint Services initiative) to define maturity of needed technologies. Further studies are conducted as needed. Procurement strategy is determined by market survey and cooperative opportunities.

Exhibit R-3 Cost Analysis (page 1)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 0852, CONSOLIDATION AUTOM SPT SYS						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Value of Contrac
PRODUCT DEVELOPMENT												
Primary Hdw Development CASS EO	C-CPFF	BOEING COMPANY, THE, SAINT LOUIS, MO	2.175	.756	3/07	.319	11/07				3.250	3.250
Primary Hdw Development CASS EO	C-CPFF	MCDONNELL DOUGLAS CORP, SAINT LOUIS, MO	2.617								2.617	2.617
Primary Hdw Development CASS Mod	C-CPFF	NORTHROP GRUMMAN SYS CORP, SYKESVILLE, MD		2.278	3/07						2.278	2.278
Primary Hdw Development CASS Mod	TBD	VARIOUS				4.749	3/08	7.349	3/09	24.754	36.852	36.852
Primary Hdw Development CASS Mod	C-CPFF	VARIOUS	6.112								6.112	6.112
Primary Hdw Development CASS Upgrades	C-CPFF	VARIOUS	1.354								1.354	1.354
Primary Hdw Development CASS Upgrades	C-CPFF	VARIOUS		.181	3/07	.200	3/08	.200	3/09	1.200	1.781	1.781
SUBTOTAL PRODUCT DEVELOPMENT			12.258	3.215		5.268		7.549		25.954	54.244	

Remarks:

SUPPORT												
Develop Support Equip CASS Mod	WX	VARIOUS	2.556								2.556	
Develop Support Equip CASS Mod	WX	VARIOUS	3.487	4.165	1/07	1.100	1/08	1.100	1/09	6.460	16.312	
SUBTOTAL SUPPORT			6.042	4.165		1.100		1.100		6.460	18.867	

Remarks: Dollars may not add due to rounding.

TEST & EVALUATION												
SUBTOTAL TEST & EVALUATION												

Remarks:

MANAGEMENT												
Travel CASS Mod	TO	NAVAIR, PAXTUXENT RIVER MD	.686	.275	VARIOUS	.276	VARIOUS	.281	VARIOUS	1.100	2.618	
Travel CASS Mod (NATEC)	TO	NAV AIR TEC EN SV CMD, SAN DIEGO CA	.073								.073	
Travel CASS Mod (NATEC)	WX	NAVICP, PHILADELPHIA PA		.026	11/06	.026	11/07	.026	11/08	.104	.182	
SUBTOTAL MANAGEMENT			.759	.301		.302		.307		1.204	2.873	

Remarks:

Total Cost			19.059	7.681		6.670		8.956		33.618	75.984	

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																													
																				DATE: February 2008									
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7					PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS												PROJECT NUMBER AND NAME 0852, CONSOLIDATION AUTOM SPT SYS													
Fiscal Year	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition **Milestones** ARGCS																												
Contract Award																												
System Development																												
Testing						Testing																						
CASS Modernization																												
Contract Award										Contract Award																		
System Development																												
Testing																												

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 0852, CONSOLIDATION AUTOM SPT SYS		
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Schedule Profile - ARGCS							
Contract Award							
System Development	1Q						
Testing	1Q-4Q	1Q-4Q					
Schedule Profile - CASS Modernization							
Contract Award			2Q				
System Development			2Q-4Q	1Q-4Q	1Q-4Q		
Testing				4Q	1Q-4Q		

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS	PROJECT NUMBER AND NAME 1041, ACFT EQ REPL/MAINT PROG	

COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
1041 ACFT EQ REPL/MAINT PROG	2.966	2.198	3.750	3.837	3.917	4.001	4.083	
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Aircraft Equipment Replacement/ Maintenance Improvement Program (AERMIP) is the only Navy program which provides Research, Development, Test & Evaluation (RDT&E) engineering support specifically for in-service, out-of-production aircraft equipment. AERMIP increases readiness through Reliability and Maintainability (R&M) and safety improvements to existing systems and equipment installed in Naval aircraft. It also provides a transition vehicle to deploy Total Ownership Cost (TOC) reduction initiatives through flight-test support and Fleet Test & Evaluation. It meets affordable readiness objectives by providing a cost-effective solution to obsolescence problems encountered when service lives are extended. AERMIP promotes commonality and standardization across aircraft platform lines and among the services through extension of application and use of non-developmental items. AERMIP also decreases life cycle costs through reduced operational and support costs. AERMIP facilitates the Operational, Safety and Improvement Program by applying proven low-risk solutions to current fleet problems. AERMIP also funds high priority flight testing which is not associated with any acquisition or development program under the Flight Test General (FTG) task.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

AVIONICS AND WIRING	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	1.352	.893	1.715	
RDT&E Articles Qty				

AVIONICS AND WIRING (A)
Validate and transition Office of Naval Research (ONR) funded Smart Wire technology by conducting full aircraft flight test. Verify and validate a replacement Advanced Data Collections System that remotely downloads memory unit information for the AN/ASH-37(v) Structural Data Recording Set (SDRS). Test and perform the required changes to validate the ASW-27 as a replacement to the ASW-25. Perform the required testing to validate that the miniature version Arc Fault Circuit Breaker designed for fighter/attack aircraft and helicopters will work through system level Electro Magnetic Compatibility (EMC) and lighting events. Advance the Processor Maintainability efforts beyond the initial prototype stage to validate that accuracy of the developed common processes to ensure that reliability and maintainability issues caused by obsolescence components are identified and solutions options developed before the issues become critical. Opportunities and issues arise yearly that demand immediate attention to provide significant benefit or to avert an unanticipated problem. AERMIP actively pursues these issues and opportunities and responds quickly to implement a solution. Products are a qualified material or piece of equipment and the procedures/process required for its implementation. Pursue next generation wiring diagnosis and prognostics methods and prove the applicability to Naval aviation. Address avionics related reliability issues impacting multiple aircraft platforms.

AIR VEHICLE	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	1.614	1.305	2.035	
RDT&E Articles Qty				

AIR VEHICLE (B): Qualification and implementation of advanced non-chrome primers with adequate corrosion protection properties. Perform field-testing and validation of the Office of Naval Research developed topcoat with enhanced durability so that it can last 8 years between repainting for approval for all Naval Aviation. Apply the latest sensor technology to develop an “after market” add-on fire bottle-monitoring device that affords immediate visible indication of bottle condition (go / no go). Incorporation of improved corrosion protection schemes and reduce corrosion maintenance cost. Develop strength retention factors for injection-repaired composites that provide full-life repair for structural components on composite aircraft. Field-test and qualify for usage for all Naval Aviation and Office of Naval Research developed long-life CPC that can be effectively employed on a 308-day maintenance cycle. Evaluate high-nitrogen stainless steel as high-strength, high-toughness, high-corrosion resistance alloy for use in carrier-based aircraft components. Review data and identify applications for T 1/34 incandescent light bulb. Determine vibrational test requirements of generators across multiple Naval aviation platforms. Investigate hydraulic servo valves and repair procesures related to hydraulic pressure testing to determine equipment upgrades. Opportunities and issues arise yearly that demand immediate attention to provide significant benefit or to avert an unanticipated problem. AERMIP actively pursues these issues and opportunities and responds quickly to implement a solution. Products are a qualified material or piece of equipment and the procedures/process required for its implementation. Develop new methods of structural repair. Pursue subsystem improvements by increasing component reliability. Qualification and implementation of advanced non-chrome primers with adequate corrosion protection properties.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
Not Applicable									

D. ACQUISITION STRATEGY:Not Applicable

Exhibit R-3 Cost Analysis (page 1)									DATE: January 1900			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 1041, ACFT EQ REPL/MAINT PROG						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Systems Engineering	WX	NAWCAD, PATUXENT RIVER MD	1.165	.962	Various	.904	Various	1.520	Various	Continuing	Continuing	
Systems Engineering	WX	NAWCAD, PATUXENT RIVER MD	.989	.645	Various	.450	Various				2.084	2.084
Systems Engineering	SSFFP	RAYTHEON TECH, INDIANAPOLIS , IN	.300								.300	.300
Systems Engineering	SSFFP	EMA ASSOCIATES, LEXINGTON PARK MD	.200								.200	.200
Systems Engineering	SSFFP	VARIOUS		.689	Various	.334	Various	1.976	Various	Continuing	Continuing	
Systems Engineering	SSFFP	GENERAL ELECTRIC, NISKAYUNA		.504	4/1/2007	.500	1/1/2008				1.004	1.004
SUBTOTAL PRODUCT DEVELOPMENT			2.654	2.800		2.188		3.496		Continuing	Continuing	

Remarks:

SUPPORT												
Studies & Analysis	WX	NADEP, SAN DIEGO CA	.193								.193	
Studies & Analysis	WX	NAWCAD, PATUXENT RIVER MD	12.171								12.171	
SUBTOTAL SUPPORT			12.364								12.364	

Remarks:

TEST & EVALUATION												
SUBTOTAL TEST & EVALUATION												

Remarks:

MANAGEMENT												
Contractor Eng Sup - Direct Ci	SSFFP	VARIOUS	1.859								1.859	1.859
Program Management Support	WX	NAWCAD, PATUXENT RIVER MD	.295	.166	VARIOUS			.244	VARIOUS	Continuing	Continuing	
Travel	WX	NAWCAD, PATUXENT RIVER MD	.040			.010	VARIOUS	.010	VARIOUS	Continuing	Continuing	
SUBTOTAL MANAGEMENT			2.194	.166		.010		.254		Continuing	Continuing	

Remarks:

Total Cost			17.212	2.966		2.198		3.750		Continuing	Continuing	

Remarks:

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																																DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7									PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS														PROJECT NUMBER AND NAME 1041, ACFT EQ REPL/MAINT PROG											
Fiscal Year	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Avionics and Wiring:																																
Smart Wire																																
Arc Fault Circuit Breaker																																
ASW-25 Replacement																																
Investigate High Value Return on Investment																																
Avionics Reliability Enhancement																																
Wiring Diagnositcs and Prognostics																																
Air Vehicle:																																
Advanced Non-Chrome Primers																																
Advanced Performance Topcoat																																
Imbedded Fire Bottle Condition Sensor																																
Improved Corrosion Preventative Compounds																																
Corrosion Prevention Control																																
Advanced Methods of Structural Repair																																
Subsystem Improvement Inititiatives																																
Integrated In-Service Reliability Prog																																
Investigate High Value Return on Invest																																
Deliveries																																

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 1041, ACFT EQ REPL/MAINT PROG			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Avionics & Wiring								
Smart Wire	1Q-4Q	1Q-4Q	1Q-4Q					
Arc Fault Circuit Breaker	1Q-4Q	1Q-4Q	1Q-4Q					
ASW-25 Replacement	1Q-4Q	1Q-4Q						
Investigate High Value Return on Investment	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	
Avionics Reliability Enhancements				1Q-4Q	1Q			
Wiring Diagnosis and Prognostics				1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	
Air Vehicle								
Advanced Non-Chrome Primers	1Q-4Q	1Q-4Q						
Advanced Performance Topcoat	1Q-4Q							
Imbedded Fire Bottle Condition Sensor	1Q-4Q	1Q-2Q						
Improved Corrosion Preventative Compounds	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	
Corrosion Prevention and Control			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	
Advanced Methods of Structural Repair			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	
Subsystem Improvement Initiatives			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	
Integrated In-Service Reliability Program	1Q-4Q	1Q-4Q						
Investigate High Value Return on Investment	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS	PROJECT NUMBER AND NAME 1355, A/C ENG COMP IMP (CIP)	

COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
1355 A/C ENG COMP IMP (CIP)	57.370	56.379	59.963	59.246	60.410	60.945	62.093	
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:The Aircraft Engine Component Improvement Program (CIP) provides the only source of critical design and development engineering support to resolve safety, reliability and maintainability deficiencies of in-service Navy aircraft propulsion systems. The highest priority issues CIP addresses concern safety-of-flight deficiencies which account for approximately 80% of CIP efforts. The program also corrects service-revealed deficiencies, improves Operational Readiness (OR) and Reliability and Maintainability (R&M), and reduces platform Life Cycle Cost (LCC). Budgets are allocated across platform-specific teams and multi-platform product support teams based upon long term strategies to achieve safety and affordable readiness goals; the R-3 exhibit details annual portions of those long-term plans. CIP tasks have reduced the rate of in-flight aborts, safety incidents, non-mission capable rates, scheduled and unscheduled engine removals, maintenance work hours, and overall cost of ownership. This is accomplished through the maintenance and validation of specification performance, testing to qualify engineering changes, verifying life limits, and improving the inherent reliability of the propulsion system as an integral part of Reliability Centered Maintenance (RCM) initiatives. Historically, the missions, tactics, and environmental exposure of military aircraft systems change to meet new threats or operational demands, and often result in unforeseen problems, which if not corrected, can cause critical safety/readiness degradation, such as those experienced during DESERT SHIELD/DESERT STORM operations due to sand erosion. In addition, new problems arise through actual use during deployment of the aircraft. Development programs, while geared to resolve as many problems as possible before deployment, cannot duplicate actual operations or account for the vast array of environmental and usage variables, particularly when aircraft missions vary from those the aircraft was designed to perform. Therefore, it has been found that CIP can provide an immediate engineering response to these flight-critical problems and accelerated engine testing can avoid potential problems. CIP starts after development and Navy acceptance of the first production article and addresses usage and life problems not covered by warranties. CIP addresses engines, transmissions, propellers, starters, auxiliary power units, electrical generating systems, and fuel and lubricant systems. CIP efforts continue over the system's life, gradually decreasing to a minimum level sufficient to maintain the reliability, and decrease the operating costs, of older inventory. CIP is a highly leveraged and cooperative tri-service program with Foreign Military Sales participation.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

P3, E2, C130,(T56)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	8.462	7.474	6.407	
RDT&E Articles Qty				

P3, E2, C130,(T56)
Implement the Engine Monitory System version 7.0 upgrade. Maintain safety margins by investigating turbine coatings and develop new designs, propeller integration efforts with potential propeller designs, perform engine hot section corrosion and fatigue analysis, and bearing improvements. Analysis of redesign for first stage turbine blades on T56-A427 engines. Qualification and verification testing of redesigned first stage turbine blades. Resolve service revealed problem. Work on resolving fuel nozzle choking issue. Resolve design problems in the areas of safety coupling, compressor leakage, generator problems, and electrical wiring problems. Mission updates and life analysis of critical components.

E2/C2/C130 (Props)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	.441	.441	.496	
RDT&E Articles Qty				

E2/C2/C130 (Props) Incorporate improved blade heaters. Develop improved propeller control system.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E,N / BA-7	0205633N, AVIATION IMPROVEMENTS	1355, A/C ENG COMP IMP (CIP)

Mature Aircraft (J52)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	6.919	5.855	4.943	
RDT&E Articles Qty				

Mature Aircraft (J52)
Address the top readiness degraders and AVDLR costs; implement efforts on the J52 engine (EA-6B) ASMET test, perform annual maintenance awareness brief and annual P-408A major engine inspection program. Study and implement solutions to aging aircraft issues and future obsolescence problems. Redesign of diffuser case for increased life. Design and analysis efforts on 4.5 bearing problem on J52 engine (EA-6B).
Efforts on life analysis and mission verification for critical components. Evaluate new coatings and seals for turbine areas. Begin ASMET of Pratt Wittney Associates.

Mature Aircraft (J85)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	.694	.744	.892	
RDT&E Articles Qty				

Mature Aircraft (J85)
Address the top readiness degraders and AVDLR costs; implement efforts on the J85 engine (F-5) ASMET test, perform annual maintenance awareness brief and annual P-408A major engine inspection program. Study and implement solutions to aging aircraft issues and future obsolescence problems.

H2/H60 (T700)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	4.205	3.857	4.956	
RDT&E Articles Qty				

H2/H60 (T700)
Advanced Helicopter Transmission Lubricant Program, extended transmission component lives, increased readiness by reducing corrosion, Mission Profile Data Collection and Dynamic Component Life Limit efforts. Time on wing and Mean Time Between Removals (MTBR) cost drivers initiatives including compressor durability, Titanium Nitrates (TiN) coating and three-stage turbine. Efforts in the area of engine power loss, secondary power and wiring issues.

UH1N (T400)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	.615	.230	.297	
RDT&E Articles Qty				

UH1N (T400)
Address top safety concerns as ranked by the OAG and System Safety Working Group, continue to update Navy maintenance manuals, continue to improve time-between-overhaul and reduced impact of high-time parts; T400 Improved Compressor Turbine Stub Shaft, T400 Improved Gas Generator Case Diffuser Inlet, T400 Improved Compressor Coating, T400 Life Management, Study T400 Parts Obsolescence.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS	PROJECT NUMBER AND NAME 1355, A/C ENG COMP IMP (CIP)

AV-8B (F402)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	3.892	3.570	4.461	
RDT&E Articles Qty				

AV-8B (F402)
Address top readiness degraders and AVDLR costs; safety of flight issues, engine removal and mission failure drivers, assess life management program issues for engine components. Project included but not be limited to: ASMET testing, support of a Fleet Leader Program, Analytical Condition Insepction (ACI), Engine Life Management Program (ELMP) execution and design fixes for any service revealed deficiencies. LPC 1 vane cracking problems and FMU mod problems. Analysis of ASMET engine test.

H-53/H-46/H-3 (T58/T64)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	7.980	8.174	9.096	
RDT&E Articles Qty				

Bleed valve redesign. Working engine design efforts on top cause for engine removals; improve on wing times; addressed top safety concerns as ranked by the Operational Advisory Group (OAG); reliability-centered maintenance program; improve compressor blade retention design; and develop corrosion resistant bearing designs. Improve the mean time between engine removal based upon continued implementation of reliability center maintenance initiatives. Conduct life management analysis to resolve critical rotating component issues based upon engine structural integrity assessments and the master life management plan.

F-18 C/D/E/F (F414/F404)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	12.398	14.698	15.756	
RDT&E Articles Qty				

F-18 C/D/E/F (F414/F404)
Address top safety issues, readiness degraders, and AVDLR costs; safety of flight issues; engine removal and mission failure drivers; assess life management program issues for engine components. Analysis and redesign of fuel nozzles and control system to resolve sub idle flameout issues. Analysis of combustion linear to determine cause for durability problems. Analysis and redesign of components with service revealed deficiencies.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS	PROJECT NUMBER AND NAME 1355, A/C ENG COMP IMP (CIP)

T-45 (F405)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	2.768	2.290	2.082	
RDT&E Articles Qty				

T-45 (F405) Address top safety issues reported from fleet. Analysis and redesign components with service revealed deficiencies.

V-22 (T406)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	.200	.200	.295	
RDT&E Articles Qty				

V-22 (T406) Review safety ECP's and support incorpation safety requirements.

F-16 (F100)	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	.100	.100	.099	
RDT&E Articles Qty				

F-16 (F100) Review safety ECP's and support incorpation safety requirements.

Multi-Platform Product Support Teams	FY 2007	FY 2008	FY 2009	
Accomplishments / Effort / Sub-total Cost	8.696	8.746	10.183	
RDT&E Articles Qty		`		

Multi-Platform Product Support Teams
Projects designed to provide common support to multiple platforms in the areas of improved drive systems, secondary power and mechanical systems; improved tools for performance analysis, modeling and simulation, diagnostics, engine reliability assessment, and structural integrity; improve products and processes for fuels, lubricants, and refueling equipment; improve blade and vane repair processes and life cycle support; and improve electrical system product support, wiring, and battery systems.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
									0.000

Not Applicable

D. ACQUISITION STRATEGY:

Not Applicable

Exhibit R-3 Cost Analysis (page 1)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 1355, A/C ENG COMP IMP (CIP)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Systems Eng F110 Engine Program	SS-CPAF	GE - OHIO	17.992								17.992	17.992
Systems Eng F402 Engine Program	VARIOUS	NAWCAD, PATUXENT RIVER MD	2.778	1.365	12/1/2006	1.253	12/1/2007	1.566	12/1/2008		6.962	
Systems Eng F402 Engine Program	SS-CPFF	ROLLS ROYCE - UK	38.240	2.527	12/1/2006	2.317	12/1/2007	2.895	12/1/2008		45.979	45.979
Systems Eng T58/T64 Engine Program	SS-CPFF	GE - MASS	50.484	5.262	10/1/2006	5.679	10/1/2007	6.384	10/1/2008		67.809	67.809
Systems Eng T58/T64 Engine Program	VARIOUS	NAWCAD, PATUXENT RIVER MD	9.949	2.718	1/1/2007	2.495	1/1/2008	2.712	1/1/2009		17.875	
Systems Eng J52 Engine Program	SS-CPFF	P & W - FLORIDA	23.628	4.777	10/1/2006	3.887	10/1/2007	3.420	10/1/2008		35.712	35.712
Systems Eng J52 Engine Program	VARIOUS	NAWCAD, PATUXENT RIVER MD	3.056	2.142	12/1/2006	1.968	12/1/2007	1.523	12/1/2008		8.689	
Systems Eng T56 Engine Program	SS-CPFF	ROLLS ROYCE - IN	20.494	3.091	2/1/2007	2.689	2/1/2008	2.352	2/1/2009		28.626	28.626
Systems Eng T56 Engine Program	VARIOUS	NAWCAD, PATUXENT RIVER MD	8.210	5.371	2/1/2007	4.785	2/1/2008	4.055	2/1/2009		22.421	
Systems Eng F405 Engine Program	SS-CPFF	ROLLS ROYCE - UK	17.125	2.768	12/1/2006	2.290	12/1/2007	2.082	12/1/2008		24.265	24.265
Systems Eng F414 /F404 Engine Program	SS-CPFF	GE - MASS	34.796	10.997	12/1/2006	12.408	12/1/2007	13.317	12/1/2008		71.518	71.518
Systems Eng F414 /F404 Engine Program	VARIOUS	NAWCAD, PATUXENT RIVER MD		1.401	12/1/2006	2.212	12/1/2007	2.439	12/1/2008		6.052	
Systems Eng T700 Engine Program	SS-CPFF	GE - MASS	13.096	2.490	1/1/2007	2.283	1/1/2008	2.934	1/1/2009		20.803	20.803
Systems Eng T700 Engine Program	VARIOUS	NAWCAD, PATUXENT RIVER MD	3.458	1.715	1/1/2007	1.574	1/1/2008	2.022	1/1/2009		8.768	
Systems Eng TF34 Engine Program	VARIOUS	NAWCAD, PATUXENT RIVER MD	.338								.338	
Systems Eng TF34 Engine Program	SSCPFF	G.E. OHIO	7.845								7.845	
Systems Eng T406 Engine Program	WX	NAWCAD, PATUXENT RIVER MD	1.200	.200	12/1/2006	.200	12/1/2007	.295	12/1/2008	Continuing	Continuing	
Systems Eng T400 Engine Program	SS-CPFF	P & W - FLORIDA	3.066	.615	12/1/2006	.230	12/1/2007	.297	12/1/2008		4.208	4.208
Systems Eng J85 Engine Program	SS-CPFF	GE -OK	2.657	.694	11/1/2006	.744	11/1/2007	.892	11/1/2008		4.987	4.987
Systems Eng F100 Engine Program	WX	NAWCAD, PATUXENT RIVER MD	.100	.100	10/1/2006	.100	10/1/2007	.099	10/1/2008	Continuing	Continuing	
Systems Eng Props Program	SS-CPFF	HAM SUNSTRAND - CON	8.312	.441	12/1/2006	.441	12/1/2007	.496	12/1/2008		9.690	9.690
Systems Eng Contracts under 1.0M	VARIOUS	VARIOUS	15.892	.109	10/1/2006	.113	10/1/2007	.115	10/1/2008	Continuing	Continuing	
Systems Eng Lab Fld Activity-1.0 or more	WX	NAWCAD, PATUXENT RIVER MD	145.719	7.111	10/1/2006	7.428	10/1/2007	8.786	10/1/2008	Continuing	Continuing	
Systems Eng Other In-House Spt	VARIOUS	VARIOUS	17.984	.316	10/1/2006	.316	10/1/2007	.313	10/1/2008	Continuing	Continuing	
GFE	MILSTRIP	DES/DLA	6.032	.663	10/1/2006	.451	10/1/2007	.447	10/1/2008	Continuing	Continuing	
Award Fees	SS-CPFF		1.305								1.305	1.305
SUBTOTAL PRODUCT DEVELOPMENT			453.757	56.874		55.863		59.441		Continuing	Continuing	

Totals may not add due to rounding.

Exhibit R-3 Cost Analysis (page 1)			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME	
RDT&E,N / BA-7	0205633N, AVIATION IMPROVEMENTS	1355, A/C ENG COMP IMP (CIP)	

SUPPORT												
Develop Support Equip	VARIOUS	VARIOUS	6.082	.310	VARIOUS	.310	VARIOUS	.307	VARIOIUS	Continuing	Continuing	
SUBTOTAL SUPPORT			6.082	.310		.310		.307		Continuing	Continuing	

Remarks:

TEST & EVALUATION												
Dev Test & Eval	VARIOUS	VARIOUS	3.014	.053	VARIOUS	.053	VARIOUS	.053	VARIOUS	Continuing	Continuing	
SUBTOTAL TEST & EVALUATION			3.014	.053		.053		.053		Continuing	Continuing	

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MANAGEMENT												
Program Mgmt Sup	VARIOUS	VARIOUS	1.341	.053	VARIOUS	.053	VARIOUS	.053	VARIOUS	Continuing	Continuing	
Travel - Aquisition Planning	VARIOUS	NAVAIR, PATUXENT RIVER MD	.253	.080	VARIOUS	.100	VARIOUS	.109	VARIOUS	Continuing	Continuing	
SUBTOTAL MANAGEMENT			1.594	.133		.153		.162		Continuing	Continuing	

Total Cost			464.447	57.370		56.379		59.963		Continuing	Continuing	

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS	PROJECT NUMBER AND NAME 3189, DIGITAL I-TER	

COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
3189 DIGITAL I-TER	*10.263	4.277	**	**			
RDT&E Articles Qty	10						

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: 3189 Digital ITER: This project develops an increased capability to the existing BRU-42 Improved Triple Ejector Rack (ITER) for the AV-8B, which adds a multiple carriage capability for Smart Weapons such as JDAM. Using existing ITERs as Government Furnished Material, the electronics tray will be replaced with a more capable electronics package allowing for smart weapons capability. FY07-FY08 RDT&E,N funding under Project Unit:3189 will support full development of Digital ITER. Four RDT&E,N test articles will be electronic test set representatives for the testing of aircraft software and six RDT&E,N test articles will be Digital-ITER representatives BRU-42A/A.

* FY07 Funds are Title IX GWOT supplemental.

** FY09 and FY10 funds realiagned to PE 0604214N, Project Unit 2634. These funds were re-aligned to meet the appropriate intent and strategy of upgrading the AV-8B software to ensure the aircraft receives an increased capability while utilizing an upgraded BRU-42 Improved Triple Ejector Rack (ITER).

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

DIGITAL ITER KIT DEVELOPMENT	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	7.244	3.277	
RDT&E Articles Qty	10		

Continues Digital ITER kit development and prototype fabrication. Continues aircraft integration and Support Equipment re-design.

DIGITAL ITER SOFTWARE DEVELOPMENT	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	2.369	1.000	
RDT&E Articles Qty			

Continues Digital ITER Software Development

DIGITAL ITER TESTING	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.650		
RDT&E Articles Qty			

Continues Digital ITER Testing and Evaluation efforts.

C. OTHER PROGRAM FUNDING SUMMARY:	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
Procurement BLI: 072000 War Consumables **(APN-7)**									
Digital ITER ($M)				7.400					7.400

D. ACQUISITION STRATEGY: Digital ITER development will occur as a Navy SBIR effort. Integration and software development on the AV-8B will occur as part of the OSCAR software update and will be done through NAWC AD Patuxent River, MD and NAWC WD China Lake.

Exhibit R-3 Cost Analysis (page 1)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 3189, DIGITAL I-TER						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Aircraft Integration	WX	NAWCAD, PATUXENT RIVER MD		.263	Jun 2007	.214	Dec 2007				.477	
Primary Hdw Development	C/CPFF	EDO-MTECH, WARMINSTER PA		4.017	Mar 2008	2.000	Mar 2008				6.017	6.017
SUBTOTAL PRODUCT DEVELOPMENT				4.280		2.214					6.494	

Remarks: Target Value of contract is latest Program Manager Estimate.

SUPPORT												
Develop Support Equip	WX	NAWCAD, LAKEHURST NJ		.350	Dec 2007	.110	May 2008				.460	
Integrated Logistics Sup	WX	NAWCWD, CHINA LAKE CA		.620	Jul 2007	.230	Mar 2008				.850	
	WX	NAWCAD, PAX		1.054	Dec 2007						1.054	
	WX	Cherry Point		.120	Dec 2007						.120	
Software Development	WX	NAWCWD, CHINA LAKE CA TDL		2.369	Jun 2007	1.000	Mar 2008				3.369	
SUBTOTAL SUPPORT				4.513		1.340					5.853	

Remarks:

TEST & EVALUATION												
Dev Test & Eval	WX	NAWCWD, CHNIA LAKE CA		.650	Mar 2008						.650	
Design Test & Eval	C/CPFF	TBD										
SUBTOTAL TEST & EVALUATION				.650							.650	

Remarks: Target Value of contract is latest Program Manager Estimate.

MANAGEMENT												
Contractor Eng Sup	TBD	TBD		.195	Mar 2008	.130	May 2008				.325	
Government Eng Sup	WX	NAWCAD, PATUXENT RIVER MD		.300	Mar 2008	.260	May 2008				.560	
Program Mgmt Sup	WX	NAWCAD, PATUXENT RIVER MD		.125	Mar 2008	.243	May 2008				.368	
Travel		NAVAIR, PAXTUXENT RIVER MD		.200	Mar 2008	.090	May 2008				.290	
SUBTOTAL MANAGEMENT				.820		.723					1.543	

Remarks:

Total Cost				10.263		4.277					14.540	

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																												DATE: **February 2008**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N/ BA-7**					PROGRAM ELEMENT NUMBER AND NAME 0205633N Aviation Improvements												PROJECT NUMBER AND NAME 3189 Digital I-TER												
Fiscal Year	2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Hardware Development & Integration		Contract Award					SBIR Phase III Contract																					
							PDR		CDR		TRR				MS C													
Production																		Deliveries - 147										
															PRR	Contract Award												

*** SBIR Phase III Contract provides BRU -42 upgrades, digital interface kit development, and integration analysis.**

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 3189, DIGITAL I-TER			
Schedule Profile		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Development and Integration SBIR Phase III Contract			2Q-4Q	1Q-4Q	1Q-3Q			
Preliminary Design Review (PDR)			3Q					
Critical Design Review (CDR)				1Q				
Test Readiness Review (TRR)				2Q				
Milestone C					3Q			
Production Readiness Review (PRR)					3Q			
Production Contract Award					4Q			
Production Contract Deliveries						2Q-4Q	1Q	

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205633N, AVIATION IMPROVEMENTS		PROJECT NUMBER AND NAME 3190, MULTI-PURPOSE BOMB RACKS					
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
3190 MULTI-PURPOSE BOMB RACKS		26.095	47.001	29.628	18.088	.102	.146	
RDT&E Articles Qty			8	8				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: 3190 - Multi-Purpose Bomb Racks (MPBR): The MPBR will replace the BRU-41/42/33/55 and provide use for both tactical and training stores on one common rack. The MPBR will be integrated on the F/A-18A+/C/D and F/A-18E/F as part of this project.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

MULTI-PURPOSE BOMB RACK DEVELOPMENT	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		20.713	23.802
RDT&E Articles Qty			8

Vendor will begin MPBR kit design and development. Begin prototype development and fabrication. Begin support equipment re-design.

MULTI-PURPOSE BOMB RACK SOFTWARE DEV.	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		3.386	11.083
RDT&E Articles Qty			

Begin software development and aircraft integration.

MULTI-PURPOSE BOMB RACK TESTING	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		1.996	12.116
RDT&E Articles Qty			

Provide systems engineering support and begin Developmental Test and Evaluation.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	To Complete	Total Cost
072000 War Consumables (APN-7)								
Cost Code 73600 Multi-Purpose Bomb Racks (M)	* 4.781			7.368	32.400	34.200	35.100	144.986	258.835
Quantities				59	300	300	300	1,500	2,459

* $4.781M is an FY07 Congressional Add for MPBR

D. ACQUISITION STRATEGY: MPBR will be developed through a competitively awarded Cost Type contract. Aircraft software and integration will be done at the F/A-18 Advanced Weapons Laboratory at NAWC WD China Lake and through a Cost Type contract with Boeing awarded through China Lake.

Exhibit R-3 Cost Analysis (page 1)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 3190, MULTI-PURPOSE BOMB RACKS						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Aircraft Integration	WX	NAWCAD, PATUXENT RIVER MD				.750	Jun 2008	3.137	Nov 2008	1.200	5.087	
Primary Hdw Development	C/CPFF	TBD				16.617	Jun 2008	15.041	Nov 2008	3.638	35.296	35.078
Systems Eng	WX	NAWCAD, PATUXENT RIVER MD				2.300	Jun 2008	3.639	Oct 2008	3.130	9.069	
SUBTOTAL PRODUCT DEVELOPMENT						19.667		21.817		7.968	49.452	

Remarks: Target Value of contracts represents latest Program Manager estimates.

SUPPORT												
Develop Support Equip	WX	NAWCAD, LAKEHURST NJ						.380	Oct 2008	.735	1.115	
Software Development	WX	NAWCWD, CHINA LAKE CA				3.386	Sep 2008	11.083	Oct 2008	12.100	26.569	
SUBTOTAL SUPPORT						3.386		11.463		12.835	27.684	

Remarks:

TEST & EVALUATION												
Dev Test & Eval	WX	NAWCAD, PATUXENT RIVER MD				1.996	Aug 2008	12.116	Oct 2008	14.430	28.542	
Oper Test & Eval	WX	OPER T & E FOR CD 30, NORFOLK VA								9.120	9.120	
SUBTOTAL TEST & EVALUATION						1.996		12.116		23.550	37.662	

Remarks:

MANAGEMENT												
Contractor Eng Sup	TBD	TBD				.175	Sep 2008	.310	Dec 2008	.735	1.220	1.220
Government Eng Sup	WX	NAWCAD, PATUXENT RIVER MD				.200	Sep 2008	.400	Oct 2008	.735	1.335	
Government Eng Sup	WX	NAVSEA, CRANE IN				.400	Jan 2008	.550	Oct 2008	1.300	2.250	
Program Mgmt Sup	WX	NAWCAD, PATUXENT RIVER MD				.200	Jan 2008	.225	Oct 2008	.601	1.026	
Travel		NAVAIR, PAXTUXENT RIVER MD				.071	Jan 2008	.120	Oct 2008	.240	.431	
SUBTOTAL MANAGEMENT						1.046		1.605		3.611	6.262	

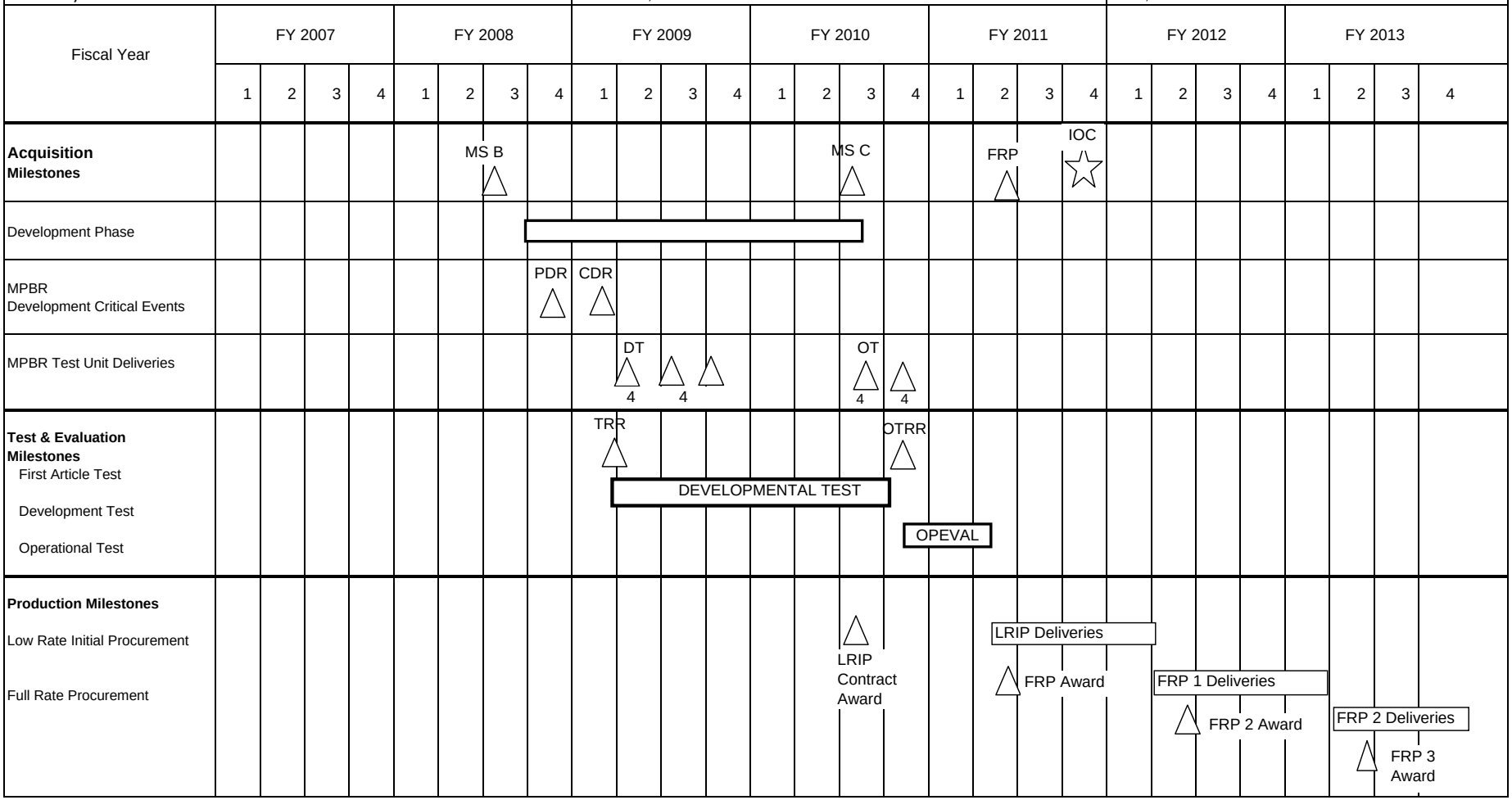
Remarks:

Total Cost						26.095		47.001		47.964	121.060	

CLASSIFICATION:

EXHIBIT R4, Schedule Profile | DATE: February 2008

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N BA-7	0205633N, AVIATION IMPROVEMENTS	3190, MULTI-PURPOSE BOMB RACKS



CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT 0205633N, AVIATION IMPROVEMENTS				PROJECT NUMBER AND NAME 3190, MULTI-PURPOSE BOMB RACKS		
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Milestone B		3Q					
Development Phase		4Q	1Q - 4Q	1Q - 3Q			
Preliminary Design Review (PDR)		4Q					
Critical Design Review (CDR)			1Q				
Developmental Test Assets Delivered			2Q - 4Q				
Developmental Test Readiness Review (TRR)			1Q				
Developmental Test and Evaluation			1Q - 4Q	1Q - 4Q			
Milestone C (MS C) / LRIP Decision				3Q			
Operational Test Assets Delivered				3Q - 4Q			
Low-Rate Initial Production Contract Award				3Q			
Operational Test Readiness Review (OTRR)				4Q			
Operational Evaluation (OT-IIC) (OPEVAL)				4Q	1Q - 2Q		
Full Rate Production (FRP) Decision					2Q		
FRP 1 Contract Award					2Q		
Low-Rate Initial Production Deliveries					2Q - 4Q	1Q-2Q	
IOC					4Q		
FRP 1 Deliveries						2Q - 4Q	1Q
FRP 2 Contract Award						2Q	
FRP 2 Deliveries							2Q - 4Q
FRP 3 Contract Award							2Q

EXHIBIT R-2a, RDT&E Project Justification							DATE: **February 2008**	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT NUMBER AND NAME **0205633N, AVIATION IMPROVEMENTS**				PROJECT NUMBER AND NAME 9999, CONGRESSIONAL ADDS			
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Project Cost	**16.215**	**19.277**						
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

CONGRESSIONAL ADDS

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2008**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA 7	**0205633N, AVIATION IMPROVEMENTS**	**9999, CONGRESSIONAL ADDS**

B. Accomplishments/Planned Program

9752C	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	2.429	3.189		
RDT&E Articles Quantity				

Real-time Weight and Balance System for C-130s

Realtime Weight and Balance System: This effort is to develop and qualify a real-time measurement weight and balance system for the C-130 to improve safety and speed of dispatch and to reduce costs associated with man-hours and delays.

9A76N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	1.262	0.989		
RDT&E Articles Quantity				

Advance Avionics Miniaturization Program

Advance Avionics Miniaturization Program: This is a continuation of 9856: This effort is to study and evaluate advanced cooling technologies for integration into existing avionics systems.

9A77N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	1.941	1.989		
RDT&E Articles Quantity				

Age Exploration Model Extension

Age Exploration Model extension program is a continution of congressional add 9109N: this effort is to develop an Age Exploration Model for Naval aircraft platforms. The model will use existing Naval aircraft data to establish connections between age and reliability, maintainability, and readines and will provide the Navy with a valuable tool for understanding, predicting, and communicating impacts of decisions and for mitigating risks associated with these decisions.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2008**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA7	**0205633N, AVIATION IMPROVEMENTS**	**9999, CONGRESSIONAL ADDS**

B. Accomplishments/Planned Program (Cont.)

9A78N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	0.971			
RDT&E Articles Quantity				

Aircraft Sustainment Technology Rapid Deployment

Aircraft Sustainment Technology Rapid Deployment Initiative: This effort is to transition existing technology to military aerospace applications thereby decreasing the turn around time for Naval aircraft. Targeted technology includes advanced Non Destructive Inspection technology that would allow rapid inspection and repair of helicopters in theater and advanced manufacturing and reverse engineering systems which would allow the navy to expedite manufacture of critical obsolete components.

9A79N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	1.360	0.789		
RDT&E Articles Quantity				

Arc Fault Circuit Breaker

Arc Fault Circuit Breaker with Arc Location System: This effort is to demonstrate a wireless fault sensor to detect location of wire faults that result in the tripping of the arc fault circuit breaker.

9A80N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	0.971	1.589		
RDT&E Articles Quantity				

F/A 18 Avionics Ground Support System

This congressional add supports the F/A 18 Avionics Ground Support System.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2008**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA7	**0205633N, AVIATION IMPROVEMENTS**	**9999, CONGRESSIONAL ADDS**

B. Accomplishments/Planned Program (Cont.)

9A81N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	1.408			
RDT&E Articles Quantity				

Low Maintenance Material Applications

Low Maintenance Material Applications: This effort is to develop the processes, materials & technologies to reduce costs for composite parts manufacturing , and reduce failure of critical components operating in extreme conditions (combat, high heat, high corrosion).

9A82N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	1.019			
RDT&E Articles Quantity				

Nanocrystalline Diamond Coatings-Complex Curved

This congressional add supports the Nanocrystalline Diamond Coatings Complex Curved Improvement program.

9A83N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	0.971			
RDT&E Articles Quantity				

NAVAIR Obsolescence Management

NAVAIR Obsolescence Management and Tools. This is a continuation of 9630: To support the Center for Defense Sustainment Technology, which will conduct studies and analysis support for Aging Aircraft issues.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2008**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA7	**0205633N, AVIATION IMPROVEMENTS**	**9999, CONGRESSIONAL ADDS**

B. Accomplishments/Planned Program (Cont.)

9A84N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	0.971	0.789		
RDT&E Articles Quantity				

Rotor Blade Protection

The add supports the Joint Aeronautical Logistics Commanders (JALC) initiatives to develop an industry standard for sand and water erosion testing and the ability to model coating designs for desirable erosion properties. This program will provide the first standard for sand and water erosion testing, tools for numerical investigation of protective coatings and adhesives, and transition of repair and overhaul technology to the depots.

9A85N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	1.019			
RDT&E Articles Quantity				

Sacrificial Film Laminates-Navy Helicopter

The Sacrificial Film Laminated Navy Helicopter program is to prevent damage to helicopter windows caused by harsh environments. This condition is particularly severe during night operations. Incorporation of a tear away film on the windscreens would prevent the necessity to completely remove and replace them, downing the aircraft for the duration of the maintenance action.

9A86N	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	1.893	1.589		
RDT&E Articles Quantity				

Wireless Sensors for Navy Aircraft

The purpose of the add is to perform full scale development and test of a prototype wireless strain sensor primarily for rotorcraft applications. This full scale testing supports a Joint Aeronautical Logistics Commanders (JALC) initiative to benchmark best Condition Based Maintenance (CBM) practices and transition a suite of sensors to airborne applications.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2008**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA7	**0205633N, AVIATION IMPROVEMENTS**	**9999, CONGRESSIONAL ADDS**

B. Accomplishments/Planned Program (Cont.)

9999	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost		1.189		
RDT&E Articles Quantity				

Lightweight Composite Structure Development

Lightweight Composite Structures Development for Aerospace Vehicles: The qualification and deployment of complex composite materials for manned and unmanned ground and air vehicles leading to affordable, lightweight composite structures.

	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost		1.589		
RDT&E Articles Quantity				

Aviation Improvements-Low Observable AC

Aviation Improvements - Low Observable Aircraft Sealants: Effort to develop aircraft sealants of sufficient strength that are electrically conductive yet resist radar detection.

	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost		3.988		
RDT&E Articles Quantity				

Rapid Repair UV Curable Structural Adhesives

Rapid Repair UV Curable structural adhesives: Effort to develop structural adhesives that cure in the presence of UV light reducing required maintenance equipment while retaining required adhesive strength.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2008**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA7	**0205633N, AVIATION IMPROVEMENTS**	**9999, CONGRESSIONAL ADDS**

B. Accomplishments/Planned Program (Cont.)

	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost		1.588		
RDT&E Articles Quantity				

Structural Life Tracking

Structural Life Tracking of Navy and Marine Corps Helicopter Aircraft: Developing and validating a high fidelity customized data collection and analysis protocol for helicopter components that is fully automated

	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				