

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: May 2009
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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5				R-1 ITEM NOMENCLATURE 0604215N, STANDARDS DEVELOPMENT			
COST (\$ in Millions)	FY 2008	FY 2009	FY 2010				
Total PE Cost	103.976	66.517	53.540				
0572 JT SERVICE/N/V STD AVIONICS CP/SB	88.099	51.055	38.123				
1857 CALIBRATION STANDARDS	1.430	1.511	2.031				
2311 STORES PLANNING AND WEAPONNEERING	10.442	10.198	12.416				
2312 COMMON HELICOPTERS	0.920	0.960	0.970				
9999 CONGRESSIONAL ADD	3.085	2.793					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Project 0572, Joint Services/Navy Standard Avionics Components and Subsystems: This project provides for the identification, design, development, test, evaluation and qualification of standard avionics for Navy use, and wherever practicable, use across all Services and Foreign Military Sales. Such air combat electronics developments include communications, navigation, flight avionics, safety systems, and flight mission information systems for both forward fit and retrofit aircraft. These efforts continue to maintain federated systems while encouraging transition of procurements to support a modular system for enhanced performance and affordability. Consideration is given up front to reduce acquisition costs through larger procurement quantities that satisfy multi-aircraft customer requirements and that reduce life cycle costs in the areas of reliability, maintainability, and training. Several examples of past successful tasks under this project include the Standard Central Air Data Computer, Solid State Barometric Altimeter, and Downed Aircraft Location System, jointly developed with the Air Force and Army and currently installed on numerous Navy, Air Force and Army aircraft. This project also funds the C/KC-130T Avionics Modernization Program (AMP), and Navy chairmanship and participation in the Joint Services Review Committee (JSRC) for Avionics Standardization. The RDT&E Articles include Advanced Mission Computer & Display (AMC&D), GPWS/TAWS, and KC-130T AMP test articles.

Project S1857, Calibration Standards: This project is a Navy-wide program to develop required calibration standards (hardware) in all major measurement technology areas in support of Navy Hull, Mechanical and Electrical (HM&E) systems as well as Navy Weapons systems, ground and air, throughout the Fleet. It funds Navy lead-service responsibilities in the DOD and Joint Services Meteorology Research and Development program. This project supports the military requirement to verify the performance of all test systems used to validate the operation of Navy Hull, Mechanical and Electrical (HM&E) as well as Navy Weapon Systems with calibration standards traceable to the National Institute of Standards and Technology.

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<p>Project 2311, Stores Planning and Weaponing Module: The Naval Aircraft Weaponing Components (NAWC) project, now referred to as the Weaponing and Stores Planning (WASP) components, are integrated software products that allow aircrew to determine the best combinations of weapons and delivery conditions to achieve the desired level of target damage, eliminate weapon delivery solutions that violate aircraft T/M/S specific safety-of-flight envelopes, and perform detailed weapons employment planning. WASP is approved by N88 as a flight clearance implementation system for the F/A-18 A, A+, B, C, D, D (RC) , E, F, and EA-18G aircraft, and for all future aircraft T/M/S in the Joint Mission Planning System (JMPS). WASP components will alert pilots if their planned weapon release conditions meet flight clearance limits, will result in bomb-to-bomb collisions, bomb-to-aircraft collisions, aircraft overstress, or excessive risk of aircraft loss/damage in the event of fuze early bursts. Weaponing capabilities are fundamental requirements for Interdiction, Armed RECCE and Close Air Support mission planning, therefore WASP product availability is critical to successful deployment of the Joint Mission Planning System (JMPS) Combat 1 OT&E for AV-8B JMPS framework; 1.4 OT&E for F/A-18 A-F and EA-18G. The WASP product encompasses a multitude of Government-Off-The-Shelf (GOTS) and Commercial-Off-The-Shelf (COTS) software components and tools (aircraft target maneuver simulations, weapon flyout models, target probability of damage calculators), which are delivered as new targets are identified as emergent requirements for new aircraft T/M/S, stores and weapons are approved by N88, and new flight clearances and flight restrictions are issued by NAVAIRSYSCOM.</p> <p>Project 2312, Common Helicopters: Automated mission planning systems to date have focused on developing planning capabilities for fixed-wing aircraft, while the unique planning requirements for helicopters have not been fully addressed. The unique and enhanced automated mission planning requirements that must be developed and implemented for helicopters include: data loading, an enhanced route editor (serpentine routing, hover), manipulation of higher fidelity (smaller scale) maps and imagery, enhanced performance tools (performance in and out of ground effect, performance degradation due to atmospheric conditions & elevation), and enhanced fidelity of landing zone, target zone, and threat analyses. The following type/model/series aircraft are supported by this PE: AH-1W/Z, UH-1N/Y, H-46D/E, H 53D/E, H-60B/F/H/R/S, V-22 and VH-71. Common helicopter functionality will be developed for implementation in the Joint Mission Planning System (JMPS) after JMPS initial fielding.</p> <p>Project 9999, The principal functions of AVITS is to provide the military maintainer: the capability to configure multiple, programmable virtual instruments into a portable, light weight, single-standard, multiple protocol packaging scheme; a capability that provides an interface to distance support assistance and training applications; and a system that reduces total ownership costs within the military. In addition, AVITS shall provide: "plug-and-play" instrument functionality along with self-test and self-system/on-line verification (calibration); one control/display with multiple virtual control/display panels; an integrated test executive engine that allows for automated maintenance procedures applications; and the ability to collect/transmit test data in a format and language compatible with legacy maintenance data management software currently in use by the military. Includes FY08 Congressional Add - Advanced Measurement 3.085.</p>		

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B. PROGRAM CHANGE SUMMARY:

Funding:	FY08	FY09	FY10
Previous President's Budget:	107.114	71.920	41.046
Current President's Budget:	103.976	66.517	53.540
Total Adjustments	-3.138	-5.403	12.494

Summary of Adjustments

Congressional Rescissions			
Congressional Adjustments		-5.222	
SBIR/STTR/FTT Assessments			
Program Adjustments	-2.693		12.506
Rate/Misc Adjustments	-0.445	-0.181	-0.012
Subtotal	-3.138	-5.403	12.494

Schedule:

AMCD-AMC&D-A trade study was done to turn Fiber Channel Network System (FCNS) into a network processor. Due to the study, the requirement for F/A-18 went away and replaced with the V-22 Mission System Upgrade (MSU). The Open System Processor (OSP) Redesign was rolled into the V-22 MSU. As of the end of FY2008 the FY09 Development RFP and subsequent efforts have been delayed per direction of OPNAV.

CNS/ATM-F/A-18 E/F/G RNP RNAV Requirements Analysis was deleted. CNS/ATM-Platform Procurements and Deliveries were changed because there was an error in their schedule. The CNS/ATM RDT&E line ended in FY08.

TAC COM-GEN 5 SATCOM Integration Waveform/S/W/Development/Certification is starting 4th Qtr FY08. GEN 5 Hardware Development to provide growth provisions for SATCOM Pre-Planned Product Improvement (P3I) begins 4th Qtr FY08. This will allow continued fleet UHF SATCOM capability as the legacy UHF SATCOM system stands down.

GPWS-H-1 schedule change due to alignment with SCS 6.0 from SCS 5.0, Integration contract with Harris slid from 1Q FY09 to 4Q FY08 to align with SCS 6.0. H-60 schedule changes: IT&E slid to 4Q FY07-4Q FY08 due to delay in P3I IT&E start; added additional software version for correction of deficiencies found in flight test. H-1 Harris Integration has been delayed to 2nd Quarter FY09. Completion of the V-22 Requirements Definition efforts delayed per direction of OPNAV.

MFOQA-F/A-18C/D/E/F & E/A-18G: System Integration and Fielding durations were shortened to accommodate SECNAV's direction of acceleration. MH-60R/S & CH-53E: Per SECNAV's direction for acceleration, Requirements Development, System Integration, DT-D1 and fielding were shifted from 3rd Qtr FY09 to 3rd Qtr FY08, System Engineering Technical Review (SETR) events were added and Test Readiness Review (TRR) was moved from 4th Quarter FY08 to 1st Qtr 2009. T-45: The T-45 was moved to occur before MV-22B and Requirements Development, System Integration, DT-D1 and Fielding were moved from 1st Qtr FY12 to 3rd Qtr FY09; Added SETR events. MV-22B: MV-22B was moved to occur following T-45 introduction and Requirements Development, System Integration, DT-D1 and Fielding were moved from 1st Qtr FY12 to 3rd Qtr FY10; Added SETR events. MH-60R/S/CH-53E SRR/SFR has delayed from 1st Quarter of FY09 to 3rd Quarter FY09 which delays the MH-60R/S/CH-53E PDR from 2nd Quarter FY09 to 1st Qtr FY10, CDR from 4th Quarter FY09 to 3rd Quarter FY10 and TRR into FY11.

CAD-Per OPNAV N88, CAD development is cancelled due to lack of T/M/S aircraft requiring new displays.

AMP-CNS/ATM C-130 AMP. Due to programmatic delays of the CNS/ATM C-130 Avionics Modernization Program in April 2008, the SDD Contract Award, Test Kit Procurement, SRR, and PDR did not occur.

Collaborative Warfare-New Start in FY 10.
1857-Not Applicable

CLASSIFICATION:

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B. PROGRAM CHANGE SUMMARY CONTINUED:

Schedule Continued:	FROM	TO	REASON
1. Acquisition Milestone Changes:			REASON
a. WASP V.1.1	Deleted		Historical
b. WASP V.1.2.1	1Q FY08		Became V.1.2.2
c. WASP V.1.2	3Q FY07	3Q FY08	Delay due to appropriate certification required
d. WASP V.1.2.2		2Q FY09	Formerly V.1.2.1
e. WASP V.1.2.3		2Q FY10	Program rebaselining
f. WASP V.AV-8B		4Q FY10	Program rebaselining

Corresponding change in Technical Evaluation (TECHEVAL) and Production Milestones have also been made.

2312: Not Applicable

9999: Not Applicable

Technical:
Not Applicable

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EXHIBIT R-2a, RDT&E Project Justification							DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT			PROJECT NUMBER AND NAME 0572, JT SERVICE/NV STD AVIONICS CP/SB			
COST (\$ in Millions)		FY 2008	FY 2009	FY 2010				
Project Cost		88.099	51.055	38.123				
RDT&E Articles Qty		2	2					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Joint Services/Navy Standard Avionics Components and Subsystems project provides for the identification, design, development, test, evaluation and qualification of standard avionics and mandatory safety improvements for Navy use, and wherever practicable, use across all services. Standard avionics systems under development include the Communication Navigation Surveillance Air Traffic Management (CNS/ATM), Advanced Mission Computer & Displays (AMC&D), Aircrew Wireless Internal Communication Systems (AWICS), Tactical Communication (TAC COMM), Ground Proximity Warning System/Terrain Awareness Warning System (GPWS/TAWS), Military Flight Operational Quality Assurance (MFOQA), Common Avionics Displays (CAD), Collaborative Warfare and C/KC-130T CNS/ATM AMP. C/KC-130T CNS/ATM AMP objectives will be achieved through a comprehensive cockpit redesign. Participation in Human Factors Quality Management Board (HFQMB) ensures Navy safety upgrades and mandatory safety improvements for naval aircraft.

CLASSIFICATION:

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT	PROJECT NUMBER AND NAME 0572, JT SERVICE/NV STD AVIONICS CP/SP

B. Accomplishments/Planned Program

Mission Computer Upgrade	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	16.535	19.186	4.820	
RDT&E Articles Quantity	2	2		

AMC&D - Completion of AV-8B Upgrade Study and F/A-18 flight test and development activity. For V-22 Platforms, conduct Risk Reduction activities and design efforts to facilitate management of critical obsolescence issues and provide for implementation of V-22 Capability Development Document (CDD) requirements for avionics systems while also addressing netcentric warfare capability Key Performance Parameters (KPPs) via modernization of existing Advanced Mission Computer Shop Replaceable Assemblies (SRAs) and software which will be incorporated into the existing AMC family of Weapons Replaceable Assemblies (WRAs); also conducting research, development, integration, test and evaluation efforts to ensure a viable system baseline is maintained in support of new production requirements and perform platform integration studies and activities to expand user base.

Development of AWICS Encrypted Module	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	1.795	0.200	0.000	
RDT&E Articles Quantity				

AWICS – Safety: Continue development and conduct testing of the Joint, Cooperative Encrypted Wireless Internal Communication System (ICS) system in cooperation with the U. S. Army led program.

Integration/Certification of F-18, H-60, H-1	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	4.123	0.000	0.000	
RDT&E Articles Quantity				

CNS/ATM - Continued CNS/ATM integration of Mode S, and Required Navigation Performance (RNP RNAV) functional integration and certification efforts into naval aircraft. Perform naval aircraft platform functional integration for F/A-18E/F, MH-60S, MH-60R, AH-1Z, UH-1Y and follow-on platforms in the areas of communications, navigation, surveillance, processing and displays. Capabilities include Mode S, 8.33khz, and RNP/RNAV.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT	PROJECT NUMBER AND NAME 0572, JT SERVICE/NV STD AVIONICS CP/SP
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B. Accomplishments/Planned Program (Cont.)

Provide Support to Tri-Service/Joint Programs	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.739	1.159	1.117	
RDT&E Articles Quantity				

JSRC - Continue to provide leadership in support of the Navy interest to the JSRC tri-service committee promoting commonality and joint programs with focus on interoperability, communications, CNS/ATM, Joint Services obsolescence Management Plan and the update of the Core Avionics Master Plan (CAMP). Support and participate in Avionics Naval Aviation Requirements (NARG) panels and HFQMB.

Develop Evolutionary Communication Systems	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	38.118	13.229	10.104	
RDT&E Articles Quantity				

Tactical Communications – Awarded integration study contracts for Tactical Communication systems within E-2 AHE (Advanced Hawkeye), H-1 and AV-8B along with Link-16 and Mobile Users Objective System (MUOS). Support all necessary tasks to ensure evolution of legacy communications systems incorporating programmable Communication Security/Information Assurance (COMSEC), Variable Message Format (VMF), MUOS, Satellite Communication (SATCOM), and Joint Precision and Landing System (JPALS) data link into the ARC-210 system. Support for networking requirements development and prototyping, Integrated Waveform (IW), Intelligence Broadcast System (IBS), JTRS, Tactical Networks, Datalinks and Link 16.

Deliver GPWS H-60, Deliver TAWS H-1, V-22	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	4.798	6.800	6.101	
RDT&E Articles Quantity				

GPWS/TAWS - Continue development of GPWS/TAWS Collision Avoidance System (CAS) algorithm tailored to the platform performance and missions of the MH-60R, MH-60S, UH-1Y, AH-1Z and MV-22. Develop simulation models for UH-1Y and AH-1Z for use at manned flight simulator (MFS) and procure H-1 hardware for MFS. Evaluate MH-60R, MH-60S, V-22 and follow-on aircraft simulation models for suitability in GPWS/TAWS CAS development effort. Develop GPWS/TAWS CAS algorithms utilizing MFS as real-time hardware and pilot in the loop tool. Develop and evaluate algorithm interfaces necessary for integration of the algorithm within platform OFF. Award H-1 Integration Contract Awards. Award V-22 Requirements Definition and Integration Contract. Initiate and complete H-60 DT and OT. Complete phase one (1) H-60 DT with current build and develop next build to correct identified deficiencies.

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B. Accomplishments/Planned Program (Cont.)

Develop MFOQA for Increment 1 Platforms	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	12.608	10.481	10.977	
RDT&E Articles Quantity				

MFOQA - MFOQA will develop a baseline software integration framework using government procured software modules to perform functions such as flight data analysis, post mission aircrew debrief, aircraft maintenance and system troubleshooting, and mishap investigation. Initial MFOQA efforts will focus on F/A-18, EA-18G, H-60, H-53, V-22, T-45 with follow-on DoN air platforms added each year. Additional efforts will include software development and integration for fleet wide shore based and shipboard MFOQA implementation. Prepare and conduct MFOQA acquisition events for each aircraft TMS such as SRR, PDR, CDR, DT, Milestone C and follow-on Decision Reviews.

Develop family of common displays	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	1.469	0.000	0.000	
RDT&E Articles Quantity				

COMMON AVIONICS DISPLAYS - Per OPNAV N88 CAD development is cancelled due to lack of T/M/S aircraft requiring new displays.

Systems Development & Demonstration (SDD) Effort	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	7.914	0.000	0.000	
RDT&E Articles Quantity				

CNS/ATM C/KC-130T AMP - Avionics Modernization - Performed Source Selection for System Development & Demonstration (SDD) contract for kit procurement, installation, and integration.
NOTE: FY09 FUNDING WAS MOVED TO PE 0605430N, PROJECT UNIT 3199.

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B. Accomplishments/Planned Program (Cont.)

Collaborative Warfare	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.000	0.000	5.004	
RDT&E Articles Quantity				

Collaborative Warfare- Collaborative Warfare Process (CWP) will be used to ensure Naval Aviation warfighter needs drive coherent network investments. The process will use prioritized scenarios, missions, and threats to align Naval Aviation Enterprise (NAE) operational, science and technology (S&T), and acquisition communities to ensure network investments deliver warfighting capability. Execute a mission-focused collaborative warfare process to identify warfighting capability gaps and define Measures of Effectiveness (MOEs) to formulate solutions sets. Employ modeling, simulations, and analysis and focused, scalable technology demonstration to validate solutions. Develop POM/PR investment strategies leveraging existing programs and ensuring common systems and Open Architecture (OA) approaches contribute to solutions.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT	PROJECT NUMBER AND NAME 0572, JT SERVICE/NV STD AVIONICS CP/SP																
<p>C. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;"><u>Line Item No. & Name</u></th> <th style="text-align: right; border-bottom: 1px solid black;"><u>FY 2008</u></th> <th style="text-align: right; border-bottom: 1px solid black;"><u>FY 2009</u></th> <th style="text-align: right; border-bottom: 1px solid black;"><u>FY 2010</u></th> </tr> </thead> <tbody> <tr> <td>APN Line Item 057700, Common Avionics</td> <td style="text-align: right;">147.729</td> <td style="text-align: right;">148.501</td> <td style="text-align: right;">151.112</td> </tr> <tr> <td>APN Line Item 056000, C-130 Series</td> <td style="text-align: right;">29.323</td> <td style="text-align: right;">6.449</td> <td style="text-align: right;">22.449</td> </tr> <tr> <td>RDT&E,N 0605430N, C/KC-130 AMP</td> <td></td> <td style="text-align: right;">24.291</td> <td></td> </tr> </tbody> </table> <p>D. ACQUISITION STRATEGY:</p> <p>Advanced Mission Computer & Displays (AMC&D) sole-source cost contract to Bell Boeing Joint Program Office for EMD study and development activities in support of the V-22 Mission Systems Upgrade (MSU). Aircrew Wireless Internal Communication System (AWICS) acquisition strategy is aligned with the Army Wireless ICS developmental program resulting in a common system for use aboard multiple assault, logistics, Rotary Wing and Fixed Wing aircraft. Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) program is a systems of systems. The program will encompass the integration of various systems that are currently post-MS III. Systems will be procured utilizing existing contracts for integration on forward-fit and retrofit platforms to provide CNS/ATM functionality. Tactical Communications is utilizing a firm fixed price contract to Rockwell Collins for research and development of the ARC-210 Gen 5 and other Navy contract vehicles for integration studies. The Navy will integrate systems and components to satisfy platform requirements to achieve tactical communication capability as determined by analyses. GPWS/TAWS software modules will be developed by the existing PMA209 government software product team. The software modules will be integrated into the platform host computer by the platform's prime integrator. MFOQA Government activities include integrating a combination of existing aircraft hardware, ground support equipment, commercial off the shelf/government off the shelf hardware and software products. MFOQA program interfaces will be created to share data captured by the automated maintenance systems (e.g., AME, HUMS) and existing databases. The Navy conducted a full and open competition for both the MFOQA S/W development, integration and support contract as well as the commercial off the shelf S/W data analysis product.</p> <p>The USN/USMC CNS/ATM C-130 Avionics Modernization Program (AMP) will issue a Request for Proposal for full and open competition to modify its 48 C/KC-130T aircraft. The strategy is to utilize a single contract to perform both system integration and production. Market research has revealed several contractors with developed systems and experience in integration and installation providing significant competition to leverage off an existing commercial base. The requirements of the program can be met with COTS/NDI subsystems integrated into an AMP system. The program will enter the acquisition framework post MS-B for integration and test kit installation on one aircraft. Integrated testing will be utilized with a Full Rate Production Decision following successful test and MS-C decision.</p>			<u>Line Item No. & Name</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	APN Line Item 057700, Common Avionics	147.729	148.501	151.112	APN Line Item 056000, C-130 Series	29.323	6.449	22.449	RDT&E,N 0605430N, C/KC-130 AMP		24.291	
<u>Line Item No. & Name</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>															
APN Line Item 057700, Common Avionics	147.729	148.501	151.112															
APN Line Item 056000, C-130 Series	29.323	6.449	22.449															
RDT&E,N 0605430N, C/KC-130 AMP		24.291																

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Exhibit R-3 Cost Analysis (page 1)								DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			0604215N, STANDARDS DEVELOPMENT			0572, JT SERVICE/NV STD AVIONICS CP/SP					
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	SS-CPIF	BELL BOEING, AMARILLO, TX 79120		13.401	05/09	0.627	05/10				
Primary Hardware Development	C-CPFF	MANTECH, FAIRFAX, VA		2.239	11/08	5.429	11/09				
Primary Hardware Development	C-FFP/CPFF	BGI, LLC, DALLAS, TX		1.055	01/09	0.283	01/10				
Primary Hardware Development	SS- T&M	DCS CORPORATION, ALEXANDRIA, VA	2.820	1.000	11/08	1.386	11/09				
Primary Hardware Development	VARIOUS	VARIOUS	34.637	0.468	VARIOUS	1.477	VARIOUS				
Ancillary Hardware Development											
Aircraft Integration	SS-FFP	ROCKWELL COLLINS, INC., CEDAR RAPIDS, IA		5.360	11/08	3.294	01/11				
Aircraft Integration	SS-CPFF	BELL HELICOPTER TEXTRON INC, HURST, TX	5.465	2.544	01/09	0.800	01/10				
Aircraft Integration	WX	NAWCWD, CHINA LAKE, CA	5.273	1.157	11/08	0.300	11/09				
Aircraft Integration	VARIOUS	VARIOUS	38.311	0.525	VARIOUS	1.106	VARIOUS				
Ship Integration											
Ship Suitability											
Systems Engineering	WX	NAWCAD, PATUXENT RIVER, MD	14.439	2.672	VARIOUS	2.575	VARIOUS				
Systems Engineering	VARIOUS	VARIOUS	14.954	3.578	VARIOUS	3.347	VARIOUS				
Training Development	VARIOUS	VARIOUS		0.525	VARIOUS						
Licenses											
Tooling											
GFE											
Award Fees											
		FROM FY94-02	277.703								
Subtotal Product Development			393.602	34.524		20.624					
Remarks:											
Development Support	VARIOUS	VARIOUS	1.557	0.362	VARIOUS	0.337	VARIOUS				
Software Development											
Integrated Logistics Support	VARIOUS	VARIOUS	7.331	3.176	VARIOUS	2.034	VARIOUS				
Configuration Management											
Technical Data			0.735								
Studies & Analyses	VARIOUS	VARIOUS	6.947	0.255	VARIOUS	0.230	VARIOUS				
Studies & Analyses	TBD	TBD	4.113			4.716	VARIOUS				
GFE											
Award Fees											
		FROM FY94-02	24.636								
Subtotal Support			45.319	3.793		7.317					
Remarks:											

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Exhibit R-3 Cost Analysis (page 2)							DATE: May 2009				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			0604215N, STANDARDS DEVELOPMENT			0572, JT SERVICE/NV STD AVIONICS CP/SP					
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	5.066	1.014	VARIOUS	0.238	VARIOUS				
Developmental Test & Evaluation	WX	NAWCWD, CHINA LAKE, CA	2.221	0.450	VARIOUS	0.999	VARIOUS				
Developmental Test & Evaluation	VARIOUS	VARIOUS	6.975								
Operational Test & Evaluation	VARIOUS	VARIOUS	1.973								
Live Fire Test & Evaluation											
Test Assets	VARIOUS	VARIOUS	1.776								
Tooling											
GFE											
Award Fees											
		FROM FY94-02	24.363								
Subtotal T&E			42.374	1.464		1.237					
Remarks:											
Contractor Engineering Support	VARIOUS	VARIOUS	28.936	6.416	VARIOUS	4.728	VARIOUS				
Government Engineering Support	VARIOUS	VARIOUS	11.570	0.742	VARIOUS	0.946	VARIOUS				
Government Engineering Support	WX	NAWCAD, PATUXENT RIVER, MD	6.626	0.854	VARIOUS	0.660	VARIOUS				
Program Management Support	VARIOUS	VARIOUS	7.943	0.344	VARIOUS	0.136	VARIOUS				
Program Management Support	WX	NAWCAD, PATUXENT RIVER, MD	7.160	2.803	VARIOUS	2.370	VARIOUS				
Travel	TO	NAVAIR, PATUXENT RIVER, MD	0.603	0.115	VARIOUS	0.105	VARIOUS				
Transportation											
SBIR Assessment											
Subtotal Management			62.838	11.274		8.945					
Remarks:											
Total Cost			544.133	51.055		38.123					
Remarks:											

EXHIBIT R4, Schedule Profile													DATE:				
AMC&D													May 2009				
APPROPRIATION/BUDGET ACTIVITY						PROGRAM ELEMENT NUMBER AND NAME						PROJECT NUMBER AND NAME					
RDT&E, N / BA-5						0604215N, Standards Development						0572, JT SERV/NV STD AVION CP/SB					
Fiscal Year	2008				2009				2010								
	1	2	3	4	1	2	3	4	1	2	3	4					
Acquisition Milestones																	
RFP			▼			▽											
Development Contract Awards			▼			▽											
SRR																	
IBR						▽											
PDR							▽										
CDR										▽							
Software Builds											▽					▽	
Test & Evaluation Milestones																	
MSU Risk Reduction/Study			▼	-----				▽									
MSU FY09 Development						▽	-----										
Production Milestones																	
Deliveries																	

Exhibit R-4a, Schedule Detail						DATE: May 2009		
AMC&D								
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT 0604215N, Standards Development			PROJECT NUMBER AND NAME 0572, JT SERV/NV STD AVION CP/SB		
Schedule Profile			FY 2008	FY 2009	FY 2010			
RFP			3Q	2Q				
Development Contract Awards			3Q	3Q				
Software Builds					4Q			
MSU Risk Reduction			3Q-4Q	1Q-4Q				
MSU FY09 Development				2Q-4Q	1Q-4Q			
SRR				2Q				
IBR				3Q				
PDR				4Q				
CDR					2Q			

EXHIBIT R4, Schedule Profile													DATE:									
AWICS													May 2009									
APPROPRIATION/BUDGET ACTIVITY						PROGRAM ELEMENT NUMBER AND NAME						PROJECT NUMBER AND NAME										
RDT&E,N / BA-5						0604215N, STANDARDS DEVELOPMENT						0572, JT SERV/NV STD AVION CP/SB										
Fiscal Year	FY 2008				FY 2009				FY 2010													
	1	2	3	4	1	2	3	4	1	2	3	4										
Acquisition Milestones																						
Product Development																						
Test & Evaluation Milestones																						
Production Milestones																						
Deliveries																						

EXHIBIT R4, Schedule Profile													DATE: May 2009	
TACTICAL COMMUNICATIONS														
APPROPRIATION/BUDGET ACTIVITY						PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME				
RDT&E, N / BA-5						0604215N, Standards Development				0572, JT SERV/NV STD AVION CP/SB				
Fiscal Year	2008				2009				2010					
	1	2	3	4	1	2	3	4	1	2	3	4		
Acquisition Milestones														
Gen 5 Development	[Solid Bar]								Req & Design					
Gen 5 Integration														
Gen5 Design Reviews/Certifications		▲ S/W CDR			▲ TRR			△ NSA CERT	△ JITC CERT		△ PRODUCTION STARTS			
Gen 5 First Article Test & SW Verification					▲ BENCH TEST SVT									
Test & Evaluation Milestones														
Gen 5 SATCOM Integrated Waveform/ S/W/Development/Certification					[Solid Bar]								▲ JITC CERT	
Gen 5 SATCOM P3I H/W Dev					[Solid Bar]								SATCOM P3I H/W	
Gen 5 National Security Agency/ Information Assurance	[Solid Bar]													
Gen 5 Crypto Algorithm Assess/Dev	[Solid Bar]								Crypto Algorithm Assess./Dev					
Production Milestones														

EXHIBIT R4, Schedule Profile												DATE: May 2009						
GPWS/TAWS																		
APPROPRIATION/BUDGET ACTIVITY						PROGRAM ELEMENT NUMBER AND NAME						PROJECT NUMBER AND NAME						
RDT&E, N / BA-5						0604215N, Standards Development						0572, JT SERV/NV STD AVION CP/SB						
Fiscal Year	2008				2009				2010									
	1	2	3	4	1	2	3	4	1	2	3	4						
Acquisition Milestones H-60 Government Software Development					H-60 Govt S/W Development	■												
H-1 Government Software Development	H-1 Requirements Definition				H-1 Harris Integration Contract	▲			H-1 WSSA Integration	H-1 Govt S/W Development/Integration								
V-22 Government Software Development	V-22 Requirements Definition								V-22 Integration Contract	△	V-22 Govt Software Development/ Integration							
Test & Evaluation Milestones Developmental Test	H-60 Integrated Test & Evaluation																	
Production Milestones																		
Deliveries																		

EXHIBIT R4, Schedule Profile	DATE: May 2009
MFOQA	

APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT	PROJECT NUMBER AND NAME 0572, JT SERV/NV STD AVION CP/SB
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Fiscal Year	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition									MSC	IOC		
Milestones									F/A-18 Fielding Decision			MH-60R/S & CH-53E Fielding Decision
Contract Events												
FVDA SW Modules		◆ COTS Procurement				▲ OPT 1				▲ OPT 2		
Product Team		▲ OPT 1				▲ OPT 2				▲ OPT 3		
F/A-18 C/D/E/F, EA-18G	▲ PDR	▲ CDR	▲ TRR			▲ TRR						
MH-60R/S / CH-53E												
T-45												
MV-22B												

EXHIBIT R4, Schedule Profile											DATE:			
CAD											May 2009			
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME				
RDT&E,N / BA-5					0604215N, STANDARDS DEVELOPMENT					0572, JT SERV/NV STD AVION CP/SB				
Fiscal Year	FY 2008				FY 2009				FY 2010					
	1	2	3	4	1	2	3	4	1	2	3	4		
Acquisition Milestones	▲ Pre-SPR w/Staff		▲ SPR with AIR 1.0											
Tech Demo														
Contract Events														
Engineering Events														
Test & Evaluation Milestones														
Test Activities														
Production Milestones														
Deliveries														

EXHIBIT R4, Schedule Profile													DATE: May 2009		
Collaborative Warfare															
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-5					PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT					PROJECT NUMBER AND NAME 0572, JT SERV/NV STD AVION CP/SB					
Fiscal Year	FY 2008				FY 2009				FY 2010						
	1	2	3	4	1	2	3	4	1	2	3	4			
Activity/ Milestones										FY13CW CYCLE					
Warfighting Gap Analysis															
Candidate Solution ID															
Candidate Evaluation (M&S)															
Candidate Prioritization & Selection															
Investment Strategy															

Exhibit R-4a, Schedule Detail				DATE: May 2009			
Collaborative Warfare							
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT			PROJECT NUMBER AND NAME			
RDT&E,N / BA-5	0604215N, STANDARDS DEVELOPMENT			0572, JT SERV/NV STD AVION CP/SB			
Schedule Profile	FY 2008	FY 2009	FY 2010				
Warfighting Gap Analysis			1Q-2Q				
Candidate Solution Identification			2Q-3Q				
Candidate Evaluation (Modeling & Sim)			2Q-4Q				

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EXHIBIT R-2a, RDT&E Project Justification	DATE: May 2009
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT			PROJECT NUMBER AND NAME 1857, CALIBRATION STANDARDS			
COST (\$ in Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	1.430	1.511	2.031				
RDT&E Articles Qty							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project is a Navy-wide program to develop required calibration standards (hardware) in all major measurement technology areas in support of Navy Hull, Mechanical and Electrical (HM&E) systems as well as Navy Weapons systems, ground and air, throughout the Fleet. It funds Navy lead-service responsibilities in the DOD and Joint Services Meteorology Research and Development program. This project supports the military requirement to verify the performance of all test systems used to validate the operation of Navy Hull, Mechanical and Electrical (HM&E) as well as Navy Weapon Systems with calibration standards traceable to the National Institute of Standards and Technology.

B. Accomplishments/Planned Program

Product Development	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	1.430	1.511	2.031	
RDT&E Articles Quantity				

FY 2008 Plan:
 (\$1.130) Continue development of 2 new calibration standards (hardware) in support of chemical biological detection systems, reduce crew size initiatives, and shipboard communication systems.
 (\$.300) Continue development of standards for wireless micro electrical mechanical systems (MEMS) sensors.

FY 2009 Plan:
 (\$1.211) Complete 1 calibration standard (hardware) in support of chemical biological detection systems, reduce crew size initiatives, and shipboard communication systems and continue to development of 1 additional standard.
 (\$.300) Continue development of standards for wireless micro electrical mechanical systems (MEMS) sensors and analytical metrology.

FY 2010 Plan:
 (\$1.303) Continue development of 3 new calibration standards in support of chemical biological detection systems.
 (\$.300) Begin development of standards in support for wireless micro electrical mechanical sensors (MEMS) in support of the next generation DD(X) ships and Smart Carriers.
 (\$.428) Complete (1) calibration standard Hardware in support of chemical and biological systems and (1) high power laser attenuator in support of optical tests.

C. OTHER PROGRAM FUNDING SUMMARY:

Not Applicable

D. ACQUISITION STRATEGY:

Not Applicable

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Exhibit R-3 Cost Analysis (page 1)							DATE: May 2009				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RD&E, N / BA-5			0604215N, STANDARDS DEVELOPMENT			1857, CALIBRATION STANDARDS					
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	WX	NSWC, CORONA DIVISION	1.025	0.916	VARIOUS	1.399	VARIOUS				
Ancillary Hardware Development											
Aircraft Integration											
Ship Integration											
Ship Suitability											
Systems Engineering											
Training Development											
Licenses											
Tooling											
GFE											
Award Fees											
Subtotal Product Development			1.025	0.916		1.399					
Remarks:											
Development Support											
Software Development											
Integrated Logistics Support											
Configuration Management											
Technical Data											
Studies & Analyses											
Studies & Analyses											
GFE											
Award Fees											
Subtotal Support			0.000	0.000		0.000					
Remarks:											

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Exhibit R-3 Cost Analysis (page 2)							DATE: May 2009						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME							
RDT&E, N / BA-5			0604215N, STANDARDS DEVELOPMENT			1857, CALIBRATION STANDARDS							
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													
Developmental Test & Evaluation													
Developmental Test & Evaluation													
Operational Test & Evaluation													
Live Fire Test & Evaluation													
Test Assets													
Tooling													
GFE													
Award Fees													
Subtotal T&E			0.000	0.000		0.000							
Remarks:													
Contractor Engineering Support	WX	NSWC, CORONA DIVISION	0.472	0.292	VARIOUS	0.295	VARIOUS						
Government Engineering Support	WX	NSWC, CORONA DIVISION	1.262	0.283	VARIOUS	0.317	VARIOUS						
Government Engineering Support													
Program Management Support													
Program Management Support													
Travel	TO	NSWC, CORONA DIVISION	0.018	0.020	VARIOUS	0.020	VARIOUS						
Transportation													
SBIR Assessment													
Subtotal Management			1.752	0.595		0.632							
Remarks:													
Total Cost			2.777	1.511		2.031							
Remarks:													

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT			PROJECT NUMBER AND NAME 2311, WASP			
COST (\$ in Millions)	FY 2008	FY 2009	FY 2010					
2311 STORES PLANNING AND WEAPONNEERING	10.442	10.198	12.416					
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Project 2311, Stores Planning and Weaponneering Module: The Naval Aircraft Weaponneering Components (NAWC) project, now referred to as the Weaponneering and Stores Planning (WASP) components, are integrated software products that allow pilots to determine the best combinations of weapons and delivery conditions to achieve the desired level of target damage, eliminate weapon delivery solutions that violate aircraft T/M/S specific safety-of-flight envelopes, and perform detailed weapons employment planning. WASP is approved by N88 as a flight clearance implementation system for the F/A-18 A, A+, B, C, D, D (RC) , E, F, and G aircraft, and for all future aircraft T/M/S in the Joint Mission Planning System (JMPS). WASP components will alert pilots if their planned weapon release conditions meet flight clearance limits, will result in bomb-to-bomb collisions, bomb-to-aircraft collisions, aircraft overstress, or excessive risk of aircraft loss/damage in the event of fuze early bursts. Weaponneering capabilities are fundamental requirements for Interdiction, Armed RECCE and Close Air Support mission planning, therefore WASP product availability is critical to successful deployment of the Joint Mission Planning System (JMPS) Combat 1 OT&E for AV-8B JMPS framework; 1.4 OT&E for F/A-18 A-G. The WASP product encompasses a multitude of Government-Off-The-Shelf (GOTS) and Commercial-Off-The-Shelf (COTS) software components and tools (aircraft target maneuver simulations, weapon flyout models, target probability of damage calculators), which are delivered as new targets are identified as emergent requirements for new aircraft T/M/S, stores and weapons are approved by N88, and new flight clearances and flight restrictions are issued by NAVAIRSYSCOM.

R-1 SHOPPING LIST - Item No. 82

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA5	PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT	PROJECT NUMBER AND NAME 2311, WASP
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B. Accomplishments/Planned Program

Product Development	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	7.341	5.427	7.404	
RDT&E Articles Quantity				

Product Development - Includes associated system engineering design, development, installation, integration and software development for WASP components V1.2, V1.2.2, V1.2.3, V.1.2.4, V3.0 to support F/A-18 A-F and EA-18G, AV-8B and helicopters. Define requirements to integrate WASP components into the Joint Mission Planning System (JMPS). Provide domain engineering support for weapons separation, aircraft loads, flutter, fuzing, safe escape for application to WASP. Provide government Joint Munitions Effectiveness Manual (JMEM) engineering support (JMEM Subject Matter Experts) for integration of new JMEM capabilities into WASP. Provide analysis of new requirements, allocation of requirements, design oversight, and life cycle management of the WASP program. Develop new aircraft configuration, aircraft loading, weapon optimization, store release and delivery planning components for F/A-18 A-F, EA-18G AV-8B and helicopters as new flight clearances and flight restrictions issued by NAVAIRSYSCOM. Provide configuration management, system administration, quality assurance, documentation, metrics and software risk management for WASP. Acquire, integrate and modify numerous GOTS/COTS software components and tools (aircraft target maneuver simulations, weapon flyout models, target probability of damage calculators, etc.) that are used as GFI for the WASP software development. Integrate WASP with JSOW/JDAM/SLAM-ER and other weapons mission planning systems as required.

Test and Evaluation	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	1.728	3.284	3.475	
RDT&E Articles Quantity				

Test and Evaluation (T&E) - Provide test and evaluation for unit and system level testing; functional qualification testing; safety of flight certification testing; integration and standards compliance testing for WASP versions (WASP V1.2, V1.2.2, V1.2.3, V1.2.4 WASP V3.0 and AV-8B). Provide T&E support for guided weapons and Joint Munitions Effectiveness Manual (JMEM) accreditation. Provide JMPS Mission Planning Environment (MPE) Integration test support. Provide testing and test support to ensure all (to include internally developed software, externally developed GOTS components and COTS products) complies with DoN and DoD software mandates and directives. These include ISNS (IT-21), DITACAP/C&A, NMCI, DII COE, and FAM. All Fleet released software must comply with DoN and DoD software directives or will not be allowed to run on ship LANs or NMCI.

Program Management	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	1.373	1.487	1.537	
RDT&E Articles Quantity				

Program Management - Provide program management, which includes WASP acquisition documentation development and support, cost, schedule and performance management, contracting support (providing contract administration, preparing contract packages for award.), compliance with external directives and providing financial support (accept, obligate, commit, and track funding). Provide travel for WASP Government personnel. Continue performing project management support for this program throughout the FYDP.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:								
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604215N, STANDARDS DEVELOPMENT	PROJECT NUMBER AND NAME 2311, WASP									
<p>C. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;"><u>Line Item No. & Name</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY 2008</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY 2009</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY 2010</u></th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">PE2086F Air Force Mission Planning Systems</td> <td style="text-align: center; padding: 5px;">104.575</td> <td style="text-align: center; padding: 5px;">97.56</td> <td style="text-align: center; padding: 5px;">98.574</td> </tr> </tbody> </table> <p style="margin-top: 20px;">D. ACQUISITION STRATEGY:</p> <p style="margin-left: 20px;">Weaponneering and Stores Planning (WASP) products, delivered annually, were developed in-house by NAVAIR (NAWCAD and NAWCWD) engineers and support. The team has now migrated to a smaller government team that provides functional expertise in aircraft safety-of-flight (air-vehicle stores compatibility, weapons separation, flutter, ground/flight loads, authorized fuze arm times, aircraft safe escape), guided weapons employment and weapons effects against targets. With the majority of testing conducted by the various contractors. WASP utilizes the Mission Planning Enterprise Contract (MPEC). The various government, engineering, test, and support facilities (test facilities, functional qualification testing and certification/accreditation test) are supplemental with contract labor procured predominately through BPA contracts.</p> <p style="margin-top: 20px;">E. MAJOR PERFORMERS:</p> <p style="margin-left: 20px;">Not Applicable</p>				<u>Line Item No. & Name</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	PE2086F Air Force Mission Planning Systems	104.575	97.56	98.574
<u>Line Item No. & Name</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>								
PE2086F Air Force Mission Planning Systems	104.575	97.56	98.574								

R-1 SHOPPING LIST - Item No. 82

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Exhibit R-3 Cost Analysis (page 1)							DATE: May 2009						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604215N, STANDARDS DEVELOPMENT				2311, WASP						
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						
Product Development													
Product Development	WX	NAWCAD, PAX RIVER, MD	16.620	0.325	11/08	0.350	11/09						
Product Development	WX	NAWCWD, CHINA LAKE CA	0.448	0.472	11/08	0.575	11/09						
Systems Engineering	WX	NAWCAD, PAX RIVER MD	8.182	0.565	11/08	0.555	11/09						
Systems Engineering	WX	NAWCWD, PT MUGU CA	0.000	0.370	11/08	0.391	11/09						
Primary Software Development	CPFF	*MPEC, HANSCOM AFB	9.951	1.504	11/08	2.927	11/09						
Product Development	CPFF	VARIOUS	25.509	2.191	11/08	2.606	11/09						
Licenses													
Tooling													
GFE													
Award Fees													
Subtotal Product Development			60.710	5.427		7.404							
Remarks: *Mission Planning Environment Contract (MPEC) Dollars may not add due to rounding.													
Development Support													
Software Development													
Integrated Logistics Support													
Configuration Management													
Technical Data													
Studies & Analyses													
GFE													
Award Fees													
Subtotal Support			0.000	0.000		0.000							
Remarks:													

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Exhibit R-3 Cost Analysis (page 2)							DATE: May 2009				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			0604215N, STANDARDS DEVELOPMENT			2311, WASP					
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				
Test & Evaluation											
Test & Evaluation	WX	NAWCAD, PAX RIVER MD	15.695	1.777	11/08	1.804	11/09				
Test & Evaluation	WX	NAWCWD, CHINA LAKE CA	0.352	0.036	11/08	0.074	11/09				
Test & Evaluation	WX	NAWCWD, PT MUGU CA	0.100	0.457	11/08	0.471	11/09				
Test & Evaluation	CPFF	VARIOUS		1.014	11/08	1.126	11/09				
GFE											
Award Fees											
Subtotal T&E			16.147	3.284		3.475					
Remarks: Dollars may not add due to rounding.											
Management											
Government Engineering Support	WX	NAWCAD, PAX RIVER MD	3.771	0.181	11/08	0.185	11/09				
Government Engineering Support	WX	NAWCWD, CHINA LAKE CA	1.098								
Program Management Support	WX	NAWCAD, PAX RIVER MD	7.312	1.233	11/08	1.275	11/09				
Program Management Support	WX	NAWCWD, PT MUGU CA	0.051	0.030	11/08	0.032	11/09				
Travel	WX	NAWCAD, PAX RIVER MD	1.170	0.043	11/80	0.045	11/09				
Subtotal Management			13.402	1.487		1.537					
Remarks: Dollars may not add due to rounding.											
Total Cost			90.259	10.198		12.416					
Remarks:											

EXHIBIT R4, Schedule Profile																		DATE: May 2009					
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5										PROGRAM ELEMENT NUMBER AND NAME 0604215N Standards Development								PROJECT NUMBER AND NAME 2311 Navy Stores Planning and Weaponneering Module					
Fiscal Year	2008				2009				2010														
	1	2	3	4	1	2	3	4	1	2	3	4											
Acquisition Milestones																							
WASP V.1.2 Release (F/A-18A/B/C/D/E/F) ▲																							
WASP V.1.2.2 Release (F/A-18A/B/C/D/E/F) ▲																							
WASP V.1.2.3 Release (F/A-18A/B/C/D/E/F) ▲																							
WASP V.AV-8B Release ▲																							
Test & Evaluation Milestones																							
WASP V.1.2 (F/A-18A/B/C/D/E/F)																							
WASP V.1.2.2 (F/A-18A/B/C/D/E/F)																							
WASP V.1.2.3 (F/A-18A/B/C/D/E/F/G)																							
WASP V.AV-8B																							
WASP V.1.2.4 (F/A-18A/B/C/D/E/F/G)																							
WASP V3.0 (F/A18A/B/C/D/E/F/G)/JMPS Integration																							
Production Milestones																							
WASP V.1.2 (F/A-18A/B/C/D/E/F)																							
WASP V.1.2.2 (F/A-18A/B/C/D/E/F)																							
WASP V.1.2.3 (F/A-18A/B/C/D/E/F)																							
WASP V.AV-8B																							
WASP V.1.2.4 (F/A-18A/B/C/D/E/F)																							
WASP V3.0 (F/A18A/B/C/D/E/F/G)/JMPS Integration																							
WASP V3.1 (F/A-18A/B/C/D/E/F/G & AV-8B)																							

Exhibit R-4a, Schedule Detail						DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-5		PROGRAM ELEMENT 0604215N Standard Development			PROJECT NUMBER AND NAME 2311 WASP			
Schedule Profile		FY 2008	FY 2009	FY 2010				
Acquisition Milestones								
WASP V.1.2 Release (F/A-18A/B/C/D/E/F)		3Q						
WASP V.1.2.2 Release (F/A-18A/B/C/D/E/F)			2Q					
WASP V.1.2.3 Release (F/A-18A/B/C/D/E/F)				2Q				
Technical Evaluation (TECHEVAL)								
WASP V.1.2 (F/A-18A/B/C/D/E/F)		1Q						
WASP V.1.2.2 (F/A-18A/B/C/D/E/F)		2Q-4Q	1Q					
WASP V.1.2.3 (F/A-18A/B/C/D/E/F)			3Q-4Q	1Q				
WASP V.AV-8B				1Q-4Q				
WASP V.1.2.4 (F/A-18A/B/C/D/E/F)				3Q-4Q				
WASP V3.0 (F/A-18A/B/C/D/E/F/G) JMPS Integratrion				3Q-4Q				
Production Milestones								
WASP V.1.2.2 (F/A-18A/B/C/D/E/F)		1Q-2Q						
WASP V.1.2.3 (F/A-18A/B/C/D/E/F)		3Q-4Q	1Q-2Q					
WASP V.AV-8B		1Q-4Q	1Q-4Q					
WASP V.1.2.4 (F/A-18A/B/C/D/E/F)				1Q-3Q				
WASP V3.0 (F/A-18A/B/C/D/E/F/G) JMPS Integratrion		1Q-4Q	1Q-4Q	1Q-2Q				
WASP V3.1 (F/A-18A/B/C/D/E/F/G & AV-8B)				1Q-4Q				