EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4						R-1 ITEM NOMENCLATURE 0603860N, JPALS		
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Total PE Cost	32.594	69.298	99.929	106.407	104.397	113.033	86.543	
2329 JOINT PRECISION APPROACH	32.594	69.298	99.929	106.407	104.397	113.033	86.543	

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element provides for the development, integration, and testing of the Joint Precision Approach and Landing System (JPALS), which will be applicable to Department of Defense (DoD) Ground systems, DoD aircraft, and Navy and Coast Guard air capable surface ships. JPALS will provide a rapidly deployable, adverse weather, adverse terrain, day-night precision approach and landing capability. Operating environments include fixed or permanent ground facilities, tactical facilities, and shipboard. JPALS will be interoperable with civil landing systems. The JPALS program was established in response to the Joint Mission Need Statement (MNS) for Precision Approach and Landing Capability (PALC), which was approved by the Chief of Naval Operations on 28 July 1994 and the Chief of Staff of the Air Force on 8 August 1994. The PALC MNS was validated by the Joint Requirements Oversight Council (JROC) on 29 August 1995. Army Joint Service participation was included in the 28 May 1996 Principal Deputy Under Secretary of Defense (Acquisition and Technology) Milestone 0 Acquisition Decision Memorandum (ADM), which also designated the Air Force as the Lead Service. In March 2004, the JPALS Overarching Integrated Program Team (OIPT) determined that the MNS should be converted to an Initial Capabilities Document (ICD). The JPALS ICD was approved by the JROC on 19 September 2005. On 21 July 2007 JROCM approved the JPALS Capability Development Document (CDD) and designated the Navy as the Lead Service. The Analysis of Alternatives (AoA) was finalized in 3Q FY 2007.

Several JPALS Land and Ship based Engineering Development Model (EDM) test articles will be delivered in FY 2010 through FY 2012 to support system development and demonstration; the first EDM will be shipped in place in FY 2010 for contractor use for system development and component testing. A total of nine ship system EDMs will be procured for SDD and will support testing at land and sea based installations. Two of the ship system EDMs will be installed on CVNs and two will be installed on LHAs to support integrated test at sea. A total of four RDT&E Low Rate Initial Production (LRIP) systems will be delivered in FY 2013 in support of operational testing. The four LRIP systems will support testing at sea and at Carrier Air Wing (CVW) deployment shore stations.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2007	FY 2008	FY 2009
Previous President's Budget:	33.116	70.811	84.934
Current BES	32.594	69.298	99.929
Total Adjustments	-0.522	-1.513	14.995

Summary of Adjustments			
Congressional Reductions			
Congressional Rescissions			
Congressional Undistributed Reductions	-0.432	-0.452	
Congressional Increases			
Economic Assumptions			-0.086
Miscellaneous Adjustments	-0.090	-1.061	15.081
Subtotal	-0.522	-1.513	14.995

Schedule:
JPALS Milestone B was moved from February 2008 to March 2008 due to a conflict in scheduling with OSD. SDD contract award moved to March 2008 to accomodate change in Defense Acquisition Board schedule.

Technical:
PR-09 add reflects change to JPALS technical baseline to include an additional data link radio to support early Joint Strike Fighter (JSF) block for CVN aircraft

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603860N, JPALS	PROJECT NUMBER AND NAME 2329, JOINT PRECISION APPROACH	

COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
2329 JOINT PRECISION APPROACH	32.594	69.298	99.929	106.407	104.397	113.033	86.543	
RDT&E Articles Qty				1	5	3	4	

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element provides for the development, integration, and testing of the Joint Precision Approach and Landing System (JPALS), which will be applicable to Department of Defense (DoD) Ground systems, DoD aircraft, and Navy and Coast Guard air capable surface ships. JPALS will provide a rapidly deployable, adverse weather, adverse terrain, day-night precision approach and landing capability. Operating environments include fixed or permanent ground facilities, tactical facilities, and shipboard. JPALS will be interoperable with civil landing systems. The JPALS program was established in response to the Joint Mission Need Statement (MNS) for Precision Approach and Landing Capability (PALC), which was approved by the Chief of Naval Operations on 28 July 1994 and the Chief of Staff of the Air Force on 8 August 1994. The PALC MNS was validated by the Joint Requirements Oversight Council (JROC) on 29 August 1995. Army Joint Service participation was included in the 28 May 1996 Principal Deputy Under Secretary of Defense (Acquisition and Technology) Milestone 0 Acquisition Decision Memorandum (ADM), which also designated the Air Force as the Lead Service. In March 2004, the JPALS Overarching Integrated Program Team (OIPT) determined that the MNS should be converted to an Initial Capabilities Document (ICD). The JPALS ICD was approved by the JROC on 19 September 2005. On 21 July 2007 JROCM approved the JPALS Capability Development Document (CDD) and designated the Navy as Lead Service. The Analysis of Alternatives (AoA) was finalized in 3Q FY 2007.

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B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Technology Development Phase	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	32.594	23.891	
RDT&E Articles Qty			

Complete technology maturation and risk reduction tasks via use of Broad Area Announcements (BAA) contracts in support of Technology Development (TD) phase. Tasks include supporting documentation and presentation requirements in support of the pre-Milestone B Technology Readiness Assessment process, and pre-SDD ship and aircraft integration studies and reports. Additionally, funding supports preparing documentation to support Milestone B, developing a SDD contract solicitation package for release to industry (including the System Requirement Document), and supporting all NAVAIR pre-contract solicitation reviews and boards.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603860N, JPALS	PROJECT NUMBER AND NAME 2329, JOINT PRECISION APPROACH

System Development and Demonstration Phase	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		45.407	99.929
RDT&E Articles Qty			

Award JPALS Sea based Increment 1 SDD contract in 2Q FY08. Commence preparations for Systems Functional Review (SFR) and post-contract award Systems Requirements Review (SRR). Fund integration studies for JPALS avionics capability retrofits to CVN 21 based aircraft (F/A-18E/F, E/A-18G, E-2C/D, C-2A, and MH-60R/S). Support modernization of Air Wing platform avionics enabling a GPS precision approach capability to JPALS equipped CVN 21. Develop the interim ground station capability in support of the Joint Strike Fighter (JSF UHF Data Broadcast).

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
P-1 Line Item 57, Shipboard Air Traffic Control							1.500	Continuing	Continuing

D. ACQUISITION STRATEGY: TD phase development is being conducted jointly by NAVAIRSYSCOM (PMA213), USAF Electronic Systems Command (Global Air) and multiple industry partners. This effort will provide the concept of operations, performance specifications and technology readiness levels necessary to provide the foundation from which to launch the Increment 1 SDD phase development. In March 2007, overall joint program leadership transferred from the USAF to the USN. SDD phase development will consist of seabased JPALS, related ship and airborne reference systems, end-to-end software algorithms, necessary ship installation hardware, test equipment, system simulation software, and other RDT&E deliverable products to the joint team. The SDD contact will be decided by a full and open competition. Future procurement of airborne systems will consist of modifications to Original Equipment Manufacture (OEM) aircraft integration and to existing avionics. Seabased JPALS will be developed by the Navy with government owned or non-proprietary algorithms to an open system architecture in order to facilitate the compatible integration of many different aircraft and avionics architectures. Air Force POM 08 results defers Air Force funding and development of land based Increment 2 to POM 10. As Lead Service, the Navy will manage the Joint Program to develop all JPALS increments.

Exhibit R-3 Cost Analysis (page 1)											DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-4		PROGRAM ELEMENT 0603860N, JPALS				PROJECT NUMBER AND NAME 2329, JOINT PRECISION APPROACH							
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	Value of Contrac
PRODUCT DEVELOPMENT												
Aircraft Integration	C-CPFF	BOEING COMPANY, THE, HERNDON, VA						1.692	Dec 2008	Continuing	Continuing	
Aircraft Integration	VAR	VARIOUS				.300	Dec 2007	.282	Dec 2008	Continuing	Continuing	
Primary HW Development - Tech Maturation	C-CPFF	NORTHROP GRUMMAN CORPORATION, SAN DIEGO, CA		1.010	Feb 2007						1.010	1.010
Primary HW Development - Tech Maturation	C-CPFF	RAYTHEON COMPANY, FULLERTON, CA		6.768	Jan 2007						6.768	6.768
Primary HW Development - Tech Maturation	C-CPFF	HONEYWELL INTERNATIONAL INC, ALBUQUERQUE, NM	6.550	4.231	Feb 2007						10.781	10.781
Aircraft Integration - MMHC	C-CPFF	LOCKHEED MARTIN CORPORATION, MANASSAS, VA						1.880	Dec 2008	Continuing	Continuing	
Aircraft Integration - E2C	C-CPFF	NORTHROP GRUMMAN SYSTEMS CORPORATION, ANNAPOLIS, MD						5.545	Dec 2008	Continuing	Continuing	
Primary Hardware Development	WR	NAWCAD	31.706								31.706	
Primary Hardware Development - Spec Dev	C-CPFF	ARINC ENGINEERING SERVICES, LLC, ANNAPOLIS, MD	50.896								50.896	50.896
Primary Hardware Development - SDD	C-CPAF	TBD				45.407	Mar 2008	69.658	Dec 2008	Continuing	Continuing	
Ship Integration	WR	VARIOUS	4.110	.952	Dec 2006	.896	Dec 2007	.682	Dec 2008	Continuing	Continuing	
SUBTOTAL PRODUCT DEVELOPMENT			93.262	12.961		46.603		79.739		Continuing	Continuing	

Remarks: Completes technology development phase. Conducts non-recurring engineering efforts under the SDD contract including requirements identification and decomposition. Conducts System Requirements Review, System Functional Review, Preliminary Design Review and Integrated Baseline Review under the SDD Contract. Begins airwing integration to support CVN-21 efforts.

SUPPORT												
Development Support - ARINC	C-CPFF	ARINC ENGINEERING SERVICES, LLC, ANNAPOLIS, MD	4.126	2.558	Dec 2006	2.410	Dec 2007	1.921	Dec 2008	Continuing	Continuing	
Development Support - Misc.	C-CPFF	L-3 COMMUNICATIONS TITAN CORPORATION, MARLTON, NJ	2.200	2.143	Dec 2006	2.018	Dec 2007	1.562	Dec 2008	Continuing	Continuing	
Development Support - Misc. Contracts	VAR	VARIOUS	.200	1.023	Dec 2006	.962	Dec 2007	.757	Dec 2008	Continuing	Continuing	
ETS (non-FFRDC)	VAR	VARIOUS	.786	.382	Jun 2007	.360	Dec 2007	.274	Dec 2008	Continuing	Continuing	
Integrated Logistics Support	WR	NAWCAD, PATUXENT RIVER, MD	.856	1.061	Dec 2006	.998	Dec 2007	.760	Dec 2008	Continuing	Continuing	
SUBTOTAL SUPPORT			8.168	7.167		6.748		5.274		Continuing	Continuing	

Remarks: Tasking supports completion of Technology Development phase activities. Support includes development of Milestone-B documentation, development of SDD RFP Documentation, completion of TD phase test and demonstration efforts and systems engineering support.

TEST & EVALUATION												
Dev. T&E - NAWCAD	WR	NAWCAD, PATUXENT RIVER MD	2.100	3.114	Dec 2006	2.929	Dec 2007	2.327	Dec 2008	Continuing	Continuing	
ETS (non-FFRDC)	WR	OPER T & E FOR CD 30, NORFOLK VA	.100	.100	Dec 2006	.100	Dec 2007	.100	Dec 2008	Continuing	Continuing	
SUBTOTAL TEST & EVALUATION			2.200	3.214		3.029		2.427		Continuing	Continuing	

Remarks: Completion of TD phase demonstrations. DT focus on SDD phase test documentation planning and test range coordination. Develop DT test cases. Monitoring of SDD contractor system integration build up. Operational test activities include test and evaluation master plan requirements flow into test cases.

MANAGEMENT												
Government Eng. Support - NAWCAD	WR	NAWCAD, PATUXENT RIVER MD	6.808	4.885	Dec 2006	9.978	Dec 2007	10.055	Dec 2008	Continuing	Continuing	
PM Support MSS (Non-FFRDC)	C-CPFF	AMERICAN ELECTRONICS INC, CALIFORNIA, MD	.750	1.295	Dec 2006	1.220	Dec 2007	.964	Dec 2008	Continuing	Continuing	
Program Mgmt Support-Cost Analysis	WR	NAWCAD, PATUXENT RIVER MD	3.135	2.872	Dec 2006	1.246	Dec 2007	.987	Dec 2008	Continuing	Continuing	
Travel	WR	TRAVEL VENDOR 1001 1003 1050, LEXINGTON PARK, MD	.200	.200	Dec 2006	.474	Dec 2007	.483	Dec 2008	Continuing	Continuing	
SUBTOTAL MANAGEMENT			10.893	9.252		12.918		12.489		Continuing	Continuing	

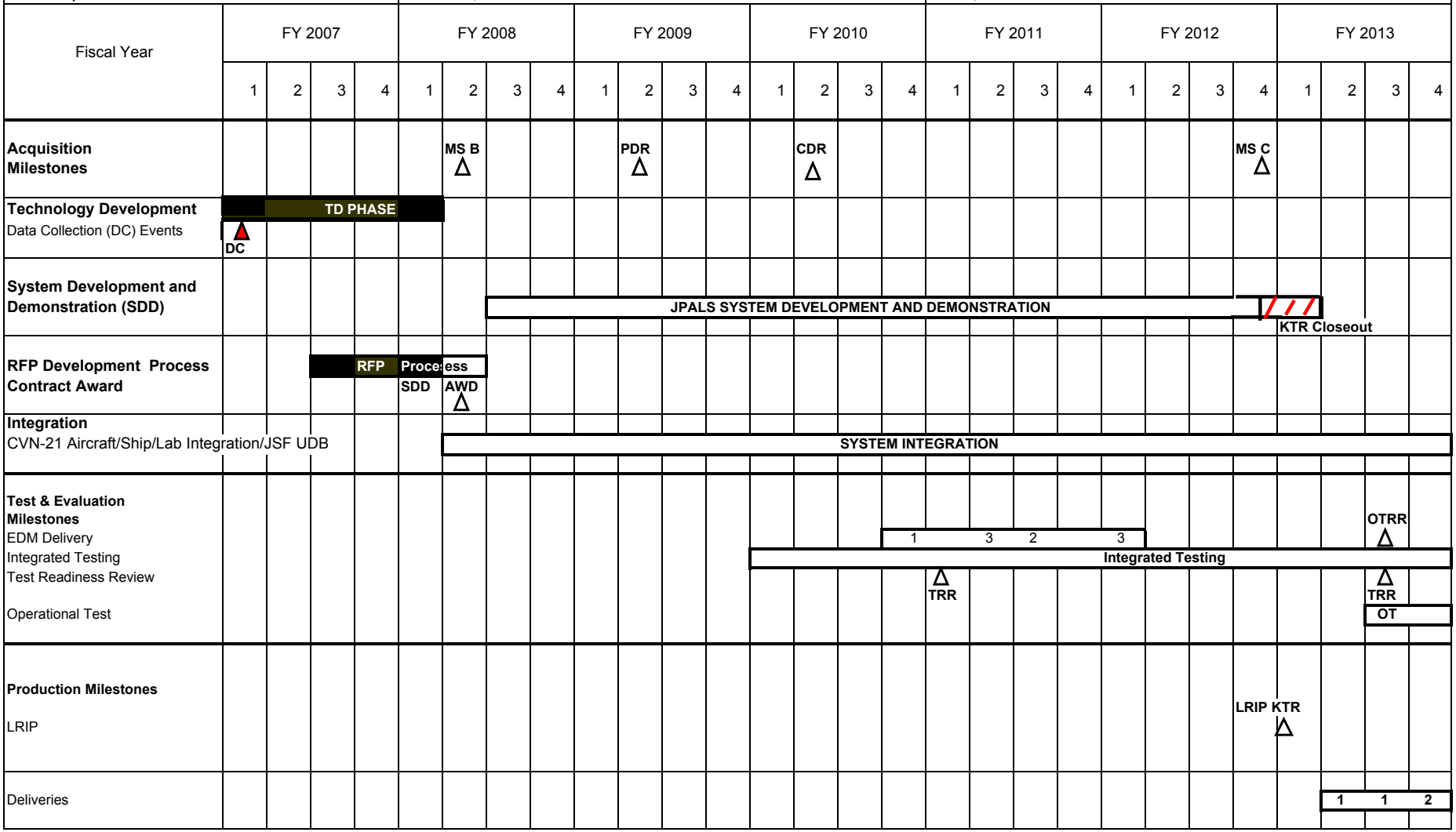
Remarks: Tasking includes execution of SDD contract activities, coordination of Prime Mission Product and support contractor activities, coordination with other USN aircraft and ship program offices, development of ship installation drawings, and non-recurring engineering support.

Total Cost			114.523	32.594		69.298		99.929		Continuing	Continuing	

CLASSIFICATION:

EXHIBIT R4, Schedule Profile — DATE: **February 2008**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-4	0603860N, JPALS	E2329, JOINT PRECISION APPROACH



CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **February 2008**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N BA-4**	PROGRAM ELEMENT 0603860N, JPALS			PROJECT NUMBER AND NAME E2329, JOINT PRECISION APPROACH			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Technology Development	1Q-4Q	1Q					
Data Collection Points	1Q						
RFP Development Process	3Q-4Q	1Q-2Q					
Milestone B (MS B)		2Q					
SDD Contract Award		2Q					
System Development & Demonstration		3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	
SDD Contract closeout						4Q	1Q
Aircraft Integration		2Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Ship Integration		2Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Lab Integration		2Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Preliminary Design Review (PDR)			2Q				
Critical Design Review (CDR)				2Q			
Test Article Delivery (EDM)				4Q	1Q-4Q	1Q	
Integrated Testing				1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Test Readiness Review (TRR)					1Q		3Q
Milestone C (MS C)						4Q	
LRIP KTR Award							1Q
LRIP Deliveries							2Q-4Q
Operational Test Readiness Review							3Q
Operational Test							3Q-4Q