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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				PE 0603860N: <i>JT Precision Approach & Ldg Sys</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	155.538	118.255	137.369	-	137.369	154.833	129.890	159.595	162.451	117.000	1,134.931
2329: <i>JPALS</i>	118.818	72.537	78.364	-	78.364	37.012	-	-	-	0.000	306.731
3228: <i>JPALS 1B</i>	36.720	45.718	59.005	-	59.005	117.821	129.890	159.595	162.451	117.000	828.200

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 Needs 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, which also designated the Air Force as the Lead Service. In March 2004, the JPALS Overarching Integrated Program Team 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 16 March 2007 JROCM approved the JPALS Capability Development Document and designated the Navy as the Lead Service. The Analysis of Alternatives was finalized in 3Q FY2007. Milestone B was met 14 July 2008. At Milestone B, the Milestone Decision Authority separated Increment 1 into Inc 1A and Inc 1B.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	159.151	121.455	148.177	-	148.177
Current President's Budget	155.538	118.255	137.369	-	137.369
Total Adjustments	-3.613	-3.200	-10.808	-	-10.808
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.200			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.503	-			
• SBIR/STTR Transfer	-3.307	-			
• Program Adjustments	-	-	-11.012	-	-11.012
• Rate/Misc Adjustments	-	-	0.204	-	0.204
• Congressional General Reductions	-0.809	-	-	-	-
Adjustments					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603860N: JT Precision Approach & Ldg Sys	
<u>Change Summary Explanation</u> Technical: Not applicable. Schedule: JPALS Inc 1A project schedule updated to reflect actual EDM deliveries in first quarter FY2011. MS C moved from 2nd quarter 2013 to 3rd quarter 2013 to accommodate a slide to CVN-77 availability for integrated test window. Project 3228 changed to include further breakdown of technical events, SRR 2 & SFR. JPALS Inc 1B project schedule updated to reflect delay in MS B (4 months). Financial: Reduced FY 13 funding to properly phase planned execution.		

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603860N: JT Precision Approach & Ldg Sys				PROJECT 2329: JPALS			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2329: JPALS	118.818	72.537	78.364	-	78.364	37.012	-	-	-	0.000	306.731
Quantity of RDT&E Articles	1	6	3	0	3	0	0	0	0		
A. Mission Description and Budget Item Justification											
Joint Precision Approach and Landing System (JPALS) Increment 1A provides for development, integration, installation, and test of Sea-Based JPALS on all air capable ships, in accordance with the JPALS Capability Development Document (CDD). This effort includes the build and test of Ship Global Positioning System/ Inertial Navigation System based precision approach and landing systems to replace obsolete AN/SPN-46 and AN/SPN-35 Systems. This requirement supports the JPALS Integration on CVN/LHA/LHD-class ships, DDG-1000 class ships (TACAN Replacement), establishes requirements for air integration, and provides critical enabling technology for Joint Strike Fighter, Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS) and FIRESOULT Unmanned Air System (UAS). Includes risk reduction efforts and trade studies for other air capable ships.											
JPALS Engineering Development Model (EDM) test articles will be delivered to support system development and demonstration, as follows:											
FY11 - 1 unit for Government Landing Systems Test Facility. FY12 - 6 EDMs for Shipboard Testing (CVN + LHD/LHA). FY13 - 3 LRIPs - CVN-69, LHD-1, and Government Ship Integration Lab (SIL)											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: JPALS Engineering and Manufacturing Development (EMD) Increment 1A - Shipboard Description: JPALS Increment 1A provides for development, integration, installation, and test of Sea-Based JPALS. FY 2011 Accomplishments: Completed Critical Design Review and Aircraft Integration Guide (AIG) delivery and began Integrated Test (IT) 1-3. FY 2012 Plans: Continue IT 1-3 and Operational Assessment test events. FY 2013 Plans: Attain Milestone C and award LRIP contract.								115.649	72.537	78.364	
								Articles: 1	6	0	
								Title: JPALS EMD Increment 1A - AIG			
Articles:								0			

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy							DATE: February 2012					
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)			R-1 ITEM NOMENCLATURE PE 0603860N: JT Precision Approach & Ldg Sys			PROJECT 2329: JPALS						
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2011		FY 2012		FY 2013	
Description: Aircraft Integration Guide and associated derived requirements are the top level performance requirements for Aircraft Integration. This guide will serve as the integration document for air platforms.												
FY 2011 Accomplishments: Verified Air Integration requirements with Test A/C.												
Accomplishments/Planned Programs Subtotals							118.818		72.537		78.364	
C. Other Program Funding Summary (\$ in Millions)												
Line Item		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPN/2867: JPALS		0.000	0.000	0.000	0.000	0.000	15.622	72.448	73.682	74.942	5.644	242.338
D. Acquisition Strategy												
<p>Technology Development phase was conducted jointly by NAVAIRSYSCOM (PMA213), USAF Electronic Systems Command (Global Air) and multiple industry partners. This effort provided the concept of operations, performance specifications and technology readiness levels necessary to provide the foundation from which to launch the Increment 1 System Development and Demonstration (SDD) phase development. In March 2007, overall joint program leadership transferred from the USAF to the USN. The JPALS 1A phase reached MS B on 17 July 2008 and the SDD phase development contract was awarded on 17 July 2008. Tasking consists 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 contract was decided after full and open competition. JPALS Increment 1A will be developed by the Navy with an open system architecture in order to facilitate the compatible integration of many different aircraft and avionics architectures. As Lead Service, the Navy will manage the Joint Program to develop all JPALS increments. An updated JPALS Acquisition Strategy separated Increment 1 into two Increments (Inc 1A and Inc 1B). JPALS Increment 1A provides for development, integration, installation, and test of Sea-Based JPALS to meet IOC of all air capable ships, in accordance with the JPALS Capability Development Document. Additionally, this requirement supports the JPALS Integration on LHA/LHD-class ships and DDG-1000 class ships and provides critical enabling technology for Joint Strike Fighter and Navy UCAS.</p>												
E. Performance Metrics												
<p>MS B conducted 17 July 2008 and approval granted for program progression to Engineering and Manufacturing Development (EMD) phase. Preliminary Design Review conducted first quarter FY 2010. Critical Design Review conducted first quarter FY2011. EDM 2 Delivery completed fourth quarter FY2011. EDM 3 - 8 deliveries scheduled first to third quarters FY2012. MS C scheduled for third quarter FY2013.</p>												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603860N: JT Precision Approach & Ldg Sys				PROJECT 2329: JPALS					
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development-TD	Various	Var:Var	105.504	-		-		-		-	0.000	105.504	105.504
Primary Hardware Development	C/CPAF	Raytheon:Fullerton, CA	224.435	40.519	Jan 2012	29.334	Jan 2013	-		29.334	7.990	302.278	302.278
Aircraft Integration-Non Specific	Various	Var:Var	2.052	-		-		-		-	0.970	3.022	3.022
Aircraft Integration-F/A-18E/F, EA-18G	Various	Boeing:St. Louis, MO	3.189	-		-		-		-	0.000	3.189	3.189
Aircraft integration-MH-60R/S	Various	Lockheed Martin:Owego, NY	2.972	-		-		-		-	0.000	2.972	2.972
Aircraft Integration-F-35 JSF	Various	Lockheed Martin:Fort Worth, TX	4.093	-		-		-		-	0.000	4.093	4.093
Aircraft Integration-MH-60R/S	Various	Sikorsky:Stratford, CT	0.662	-		-		-		-	0.000	0.662	0.662
Aircraft Integration-C-2A, E-2D	Various	Northrup Grumman:Bethpage, NY	0.895	-		-		-		-	0.000	0.895	0.895
Aircraft Integration-Systems Engineering	WR	NAWCAD:Pax River, MD	11.283	-		-		-		-	0.000	11.283	
Ship Integration	WR	NAWCAD:Pax River, MD	20.841	2.500	Dec 2011	1.141	Dec 2012	-		1.141	1.150	25.632	
Ship Integration - LRIP	WR	NAWCAD:Pax River, MD	-	-		2.740	Dec 2012	-		2.740	1.520	4.260	
LRIP1 Contract	TBD	Raytheon:Fullerton, CA	-	-		14.970	Jul 2013	-		14.970	0.000	14.970	
Award Fee	C/CPAF	Var:Var	8.068	2.000	Jan 2012	-		-		-	0.000	10.068	
Subtotal			383.994	45.019		48.185		-		48.185	11.630	488.828	
Remarks The Primary Hardware Development contract with Raytheon is a combined CPAF and CPIF contract. Period 3 (7 April 2011 - 18 November 2011)paid out 3 January 2012. 88.4% of potential payout.													

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603860N: JT Precision Approach & Ldg Sys				PROJECT 2329: JPALS					
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	Various	Var:Var	21.514	-		-		-		-	0.000	21.514	
Systems Engineering Support-EMD	WR	NAWCAD:Pax River, MD	31.453	8.080	Dec 2011	14.782	Dec 2012	-		14.782	6.367	60.682	
Integrated Logistics Support	WR	NAWCAD:Pax River, MD	11.091	3.302	Dec 2011	3.980	Dec 2012	-		3.980	2.670	21.043	
Subtotal			64.058	11.382		18.762		-		18.762	9.037	103.239	
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWCAD:Pax River, MD	29.154	5.020	Dec 2011	7.180	Dec 2012	-		7.180	6.140	47.494	
Operational Test & Evaluation	WR	COMOPTEVFOR:Norfolk, VA	1.709	0.390	Dec 2011	0.510	Dec 2012	-		0.510	0.530	3.139	
LRIP Certification	WR	NAWCAD:Pax River, MD	-	-		-		-		-	1.960	1.960	
Subtotal			30.863	5.410		7.690		-		7.690	8.630	52.593	
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD:Pax River, MD	44.814	7.400	Dec 2011	-		-		-	3.435	55.649	
Program Management Support	WR	NAWCAD:Pax River, MD	9.107	1.102	Dec 2011	2.301	Dec 2012	-		2.301	2.400	14.910	
PM Support-MSS	C/CPFF	Amelex:California, MD	7.425	1.764	Dec 2011	1.126	Dec 2012	-		1.126	0.820	11.135	11.135
Travel	WR	NAVAIR:Pax River, MD	2.438	0.460	Dec 2011	0.300	Dec 2012	-		0.300	1.060	4.258	
Subtotal			63.784	10.726		3.727		-		3.727	7.715	85.952	

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)			R-1 ITEM NOMENCLATURE PE 0603860N: JT Precision Approach & Ldg Sys				PROJECT 2329: JPALS				
	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	542.699	72.537		78.364		-		78.364	37.012	730.612	

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603860N: <i>JT Precision Approach & Ldg Sys</i>	PROJECT 2329: <i>JPALS</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603860N: <i>JT Precision Approach & Ldg Sys</i>	PROJECT 2329: <i>JPALS</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
JPALS INC 1A				
Acquisition Milestones: MS C	3	2013	3	2013
Acquisition Milestones: IOC	4	2014	4	2014
Acquisition Milestones: Full Rate Production Decision	3	2015	3	2015
Systems Development: Engineering and Manufacturing Development	1	2011	2	2013
Systems Development: Reviews: Critical Design Review (CDR)	1	2011	1	2011
Systems Development: EDM Deliveries: Engineering Development Model (EDM) 1 Delivery	1	2011	1	2011
Systems Development: EDM Deliveries: EDM 2 Delivery	4	2011	4	2011
Systems Development: EDM Deliveries: EDM 3 Delivery	1	2012	1	2012
Systems Development: EDM Deliveries: EDM 5 Delivery	2	2012	2	2012
Systems Development: EDM Deliveries: EDM 7 Delivery	3	2012	3	2012
Systems Development: EDM Deliveries: JSF Ship Integration / Flight Test	1	2012	3	2014
Test & Evaluation: Integrated Test (IT)-1-3/Operational Assessment (OA)	4	2011	2	2013
Test & Evaluation: IT-4/IT-C1	3	2013	4	2013
Test & Evaluation: Initial Operational Test and Evaluation (IOT&E)	1	2014	4	2014
Production Milestones: Aircraft Integration Guide (AIG) Delivery	1	2011	1	2011
Production Milestones: RDT&E Low Rate Initial Production (LRIP) Contract Award	3	2013	3	2013
Production Milestones: Full Rate Production (FRP) Contract Award	3	2015	3	2015
Deliveries: RDT&E LRIP Delivery Qty 3	4	2013	4	2013

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603860N: JT Precision Approach & Ldg Sys				PROJECT 3228: JPALS 1B			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
3228: JPALS 1B	36.720	45.718	59.005	-	59.005	117.821	129.890	159.595	162.451	117.000	828.200
Quantity of RDT&E Articles	0	0	4	0	4	0	0	0	0		
A. Mission Description and Budget Item Justification											
Joint Precision Approach and Landing System (JPALS) Increment 1B, beginning in FY10, provides for integration and testing into the avionics of the CVN/LHA/LHD Air Wings, and DDG 1000 Air Detachments for all USN Seabased Aircraft, including but not limited to: MH-60R/S, F/A-18E/F, EA-18G, E-2D, and C-2A. Additionally, trade studies and risk reduction activities will be pursued on additional sea based USN/USMC aircraft.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: Lead Platform Integration Articles: Description: This effort includes development, integration, and testing of the MH-60R/S. JPALS Inc 1B provides the Navy with aircraft that are JPALS capable in 2015 and out in the CVN/LHA/LHD Air Wings, and the DDG-1000 Air Detachment. FY 2011 Accomplishments: Initial design efforts for JPALS on MH-60R/S. Conducted SRR-2 and System Functional Review (SFR). FY 2012 Plans: Complete Milestone B JPALS MH-60R/S Preliminary Design Review (PDR). FY 2013 Plans: Conduct Critical Design Review (CDR).								27.944	27.302	36.931	
								0	0	4	
Title: Follow-on Platform Integration Articles: Description: This effort includes development, integration, and testing of the F/A-18E/F, EA-18G, E-2D, and C-2A, providing the Navy with aircraft that are JPALS capable in 2019 and out. Additionally, trade studies and risk reduction activities will be pursued on additional sea based USN/USMC aircraft. FY 2011 Accomplishments: Continued JPALS trade studies, risk reduction, and design activities for applicable CVN aircraft, developed platform specifications for F/A-18E/F and EA-18G. FY 2012 Plans:								8.776	18.416	22.074	
								0	0	0	

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603860N: <i>JT Precision Approach & Ldg Sys</i>	PROJECT 3228: <i>JPALS 1B</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012
Continue JPALS trade studies, risk reduction, and design activities for applicable CVN aircraft. JPALS F/A-18E/F and EA-18G SRR-2. FY 2013 Plans: Continue JPALS trade studies, risk reduction, and design activities for applicable CVN aircraft and Multi Platform Avionics. JPALS F/A-18E/F and EA-18G System Functional Review(SFR). Conduct F/A-18E/F and EA-18G Preliminary Design Review (PDR).			
Accomplishments/Planned Programs Subtotals		36.720	45.718
C. Other Program Funding Summary (\$ in Millions)			
Line Item	FY 2011	FY 2012	FY 2013
			Base
			OCO
			Total
			FY 2014
			FY 2015
			FY 2016
			FY 2017
			Cost To Complete
			Total Cost
• APN/0573: <i>JPALS</i>	0.000	0.000	0.000
			0.000
			0.000
			46.383
			115.017
			197.119
			200.443
			2,426.400
			2,985.362
D. Acquisition Strategy JPALS Technology Development phase was conducted jointly by NAVAIRSYSCOM (PMA213), USAF Electronic Systems Command (Global Air), and multiple industry partners. This effort provided the concept of operations, performance specifications and technology readiness levels necessary to provide the foundation from which to launch the Increment 1 System Development and Demonstration (SDD) phase development. As Lead Service, the Navy will manage the Joint Program to develop all JPALS increments. The JPALS capability will be incrementally acquired based on technology maturity and service needs. An updated JPALS Acquisition Strategy separates Increment 1 into two Increments (Inc 1A and Inc 1B). JPALS Increment 1A provides for development, integration, installation, and test of Sea Based JPALS. JPALS Increment 1B provides for integration and testing into the avionics of the CVN/LHA/LHD Air Wings, and DDG 1000 Air Detachments. JPALS Inc 1B will consist of the procurement of airborne systems that are modifications to original equipment manufacturer aircraft and integration to existing avionics.			
E. Performance Metrics Milestone B scheduled for 4Q12/1Q13. MH-60 R/S CDR scheduled for 2nd quarter FY2013.			

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Product Development (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Aircraft Integration-Non Specific	Various	Var:Var	11.894	0.500	Jan 2012	0.590	Mar 2013	-		0.590	5.373	18.357	18.357	
Aircraft Integration-multi-Platform Avionics	Various	TBD:Not Specified	-	-		1.603	Jun 2013	-		1.603	57.036	58.639	58.639	
Aircraft Integration-F/A-18E/F & EA-18G	SS/CPIF	Boeing:St. Louis, MO	19.788	7.950	Jan 2012	13.811	Jun 2013	-		13.811	167.043	208.592	208.592	
Aircraft Integration-MH-60R/S	SS/CPIF	Lockheed Martin:Owego, NY	7.399	17.253	Jul 2012	15.576	Dec 2012	-		15.576	134.006	174.234	174.234	
Aircraft Integration-F/A-18 E/F & EA-18G	WR	NAWCAD:China Lake, CA	0.150	-		1.588	Jun 2013	-		1.588	44.287	46.025		
Aircraft Integration-MH-60R/S	SS/CPIF	Sikorsky:Stratford, CT	0.600	8.298	Jul 2012	5.774	Dec 2012	-		5.774	57.874	72.546	72.546	
Aircraft Integration-E-2D	SS/CPFF	Northrop Grumman:Bethpage, NY	0.600	0.600	Jan 2012	0.406	Jan 2013	-		0.406	150.084	151.690	151.690	
Aircraft Integration-C-2A	SS/FFP	Rockwell Collins:Cedar Rapids, IA	-	0.300	Jan 2012	0.074	Jan 2013	-		0.074	21.945	22.319	22.319	
Aircraft Integration-C-2A	SS/FFP	Honeywell:Clearwater, FL	-	-		0.049	Jan 2013	-		0.049	23.669	23.718	23.718	
Aircraft Integration-C-2A	WR	SSC PAC:San Diego, CA	-	-		0.049	Jan 2013	-		0.049	10.173	10.222		
Aircraft Integration-C-2A	WR	FRC SW:San Diego, CA	-	-		0.074	Jan 2013	-		0.074	36.557	36.631		
Subtotal			40.431	34.901		39.594		-		39.594	708.047	822.973		
Support (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Integrated Logistics Support	WR	NAWCAD:Pax River, MD	0.845	1.150	Nov 2011	0.917	Dec 2012	-		0.917	6.595	9.507		
Engineering Support	WR	NAWCAD:Pax River, MD	-	3.150	Nov 2011	11.729	Dec 2012	-		11.729	81.054	95.933		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0603860N: JT Precision Approach & Ldg Sys				3228: JPALS 1B					
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.845	4.300		12.646		-		12.646	87.649	105.440	
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWCAD:Pax River, MD	3.872	0.460	Nov 2011	2.175	Dec 2012	-		2.175	95.651	102.158	
Operational Test & Evaluation	WR	COMOPTEVFOR:Norfolk, VA	-	-		-		-		-	20.707	20.707	
Subtotal			3.872	0.460		2.175		-		2.175	116.358	122.865	
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD:Pax River, MD	1.793	4.437	Nov 2011	-		-		-	0.000	6.230	
PM Support	WR	NAWCAD:Pax River, MD	0.546	1.150	Nov 2011	4.037	Dec 2012	-		4.037	29.016	34.749	
PM Support-MSS	C/CPFF	Amelex:California, MD	-	0.470	Jan 2012	0.553	Jan 2013	-		0.553	2.638	3.661	3.661
Subtotal			2.339	6.057		4.590		-		4.590	31.654	44.640	
			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			47.487	45.718		59.005		-		59.005	943.708	1,095.918	
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603860N: <i>JT Precision Approach & Ldg Sys</i>	PROJECT 3228: <i>JPALS 1B</i>

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603860N: <i>JT Precision Approach & Ldg Sys</i>	PROJECT 3228: <i>JPALS 1B</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603860N: <i>JT Precision Approach & Ldg Sys</i>	PROJECT 3228: <i>JPALS 1B</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
JPALS INC 1B				
Acquisition Milestones: Milestone B	4	2012	4	2012
Acquisition Milestones: Milestone C	3	2015	3	2015
Acquisition Milestones: Initial Operational Capability (IOC)	2	2017	2	2017
Systems Development: Lead Platform MH-60R/S: Trade Studies MH-60 R/S	1	2011	3	2012
Systems Development: Lead Platform MH-60R/S: MH-60R/S Design, build, test	3	2012	1	2016
Systems Development: Lead Platform MH-60R/S: MH-60R/S Engineering Development Model (EDM) Deliveries 1-4	3	2013	3	2013
Systems Development: Reviews: MH-60R/S SRR 2 / System Functional Review (SFR)	3	2011	3	2011
Systems Development: Reviews: MH-60R/S Preliminary Design Review (PDR)	2	2012	2	2012
Systems Development: Reviews: MH-60R/S Critical Design Review (CDR)	2	2013	2	2013
Systems Development: F/A-18E/F & EA-18G: Trade Studies F/A-18E/F, EA-18G	1	2011	1	2014
Systems Development: F/A-18E/F & EA-18G: F/A-18 E/F, EA-18 Design, build, test	1	2014	4	2017
Systems Development: F/A-18E/F & EA-18G: F/A18-E/F &EA-18G EDM Deliveries 1-7	2	2016	2	2016
Systems Development: Reviews: F/A18-E/F & EA-18G SRR 2	3	2012	3	2012
Systems Development: Reviews: F/A18-E/F & EA-18G PDR	3	2013	3	2013
Systems Development: Reviews: F/A18-E/F & EA-18G CDR	3	2014	3	2014
Systems Development: Reviews: F/A-18-E/F & EA-18G SFR	1	2013	1	2013
Systems Development: E-2D: E-2D Trade Studies & Risk Reduction	2	2011	4	2017
Systems Development: Reviews: E-2D SRR 2	1	2016	1	2016
Systems Development: Reviews: E-2D SFR	3	2016	3	2016
Systems Development: C-2A: C-2A Trade Studies & Risk Reduction	2	2011	4	2017

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603860N: <i>JT Precision Approach & Ldg Sys</i>	PROJECT 3228: <i>JPALS 1B</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Systems Development: Reviews: C-2A SRR 2	3	2016	3	2016
Systems Development: Reviews: C-2A SFR	2	2016	2	2016
Systems Development: Multiplatform Avionics, LH & Land Based Aircraft: Multiplatform Avionics, LH & Land Based Aircraft Trade Studies & Risk Reduction	2	2013	4	2017
Test and Evaluation: MH-60R/S Initial Test and Evaluation (IT&E)/Operational Assessment (OA)	3	2013	2	2014
Test and Evaluation: MH-60R/S Operational Testing (OT)	3	2015	4	2015
Test and Evaluation: F/A18-E/F & EA-18G IT&E/OA	2	2015	4	2017
Production Milestones: MH-60R/S Long Lead Procurement	1	2014	1	2014
Production Milestones: MH-60R/S Low Rate Initial Production (LRIP) APN Procurement	3	2014	3	2014
Production Milestones: Start Production Installation MH-60 R/S	2	2016	4	2017
Deliveries: LRIP APN Deliveries 1-2	1	2015	1	2015