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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0205601N: Harm Improvement							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	722.919	11.748	11.477	13.586	-	13.586	8.108	7.390	6.525	6.610	Continuing	Continuing
1780: HARM Improvement	43.683	1.375	1.382	1.339	-	1.339	1.359	1.419	1.468	1.485	Continuing	Continuing
2185: AARGM	650.369	6.504	6.995	12.247	-	12.247	6.749	5.971	5.057	5.125	Continuing	Continuing
3056: Advanced Precision Kill Weapons System	0.000	2.969	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.969
3212: MEDUSA JCTD	28.867	0.900	3.100	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	32.867
MDAP/MAIS Code(s): 368												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note												
A new Program Element (PE), 0605555N, has been established for the Direct and Time Sensitive Strike Program Office to support research, development, test and evaluation of Strike Weapons to be employed from a multitude of fixed and rotary wing aircraft in support of offensive and defensive land and sea based targets across multiple mission areas. The following projects have been realigned/transferred to this new PE beginning in FY 2014: 3212 - MEDUSA JCTD and 3412 - Hellfire-R Integration.												
A. Mission Description and Budget Item Justification												
Research, Development, Test and Evaluation funding for the Joint Service Pre-Planned Product Improvement program which will include near and far term performance improvements, cost reduction, and studies that establish future development requirements. Specific initial efforts include lower cost seeker component development and seeker aided fuzing to enhance warhead performance in low angle impacts and against certain ship targets. This excludes civilian and military manpower and their related costs and military construction costs which will be included in appropriate management and support elements.												
These projects are funded under Operational Systems Development because they include development efforts to upgrade systems that have been fielded or have received approval for full rate production and ancitipate funding in the current or subsequent fiscal year.												

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0205601N: Harm Improvement			
BA 7: Operational Systems Development					
B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	11.147	11.477	16.551	-	16.551
Current President's Budget	11.748	11.477	13.586	-	13.586
Total Adjustments	0.601	0.000	-2.965	-	-2.965
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.820	0.000			
• SBIR/STTR Transfer	-0.219	0.000			
• Rate/Misc Adjustments	0.000	0.000	-2.965	-	-2.965

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0205601N: Harm Improvement				PROJECT 1780: HARM Improvement			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1780: HARM Improvement	43.683	1.375	1.382	1.339	-	1.339	1.359	1.419	1.468	1.485	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
High-speed Anti Radiation Missile (HARM) Improvement is a Navy led joint service program with the Air Force. The program commenced production in FY 1983. Program element 0205601N was used until FY 1990 to develop and test one hardware and two software upgrades to the HARM (AGM-88B, Block 3 & AGM-88C, Block 4) as Engineering Change Proposals (ECPs). Another ECP software program (Block 3A & 5) was developed (FY 1996 through FY 1999) to modify HARM software in order to meet operational requirements. HARM Block 3A/5 software was distributed to the Fleet in FY 2000. The Block 5 tactical software upgrade gives HARM improved geographic specificity and improved capability against advanced waveforms. HARM Block 5A is currently being deployed in the Fleet.												
HARM Improvement includes efforts to conduct Foreign Military Assessment (FMA) analysis and engineering to exploit vulnerabilities of foreign weapon system threats. HARM Improvement includes funding for threat assessment, operational updates and integration efforts.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: HARM Foreign Military Assessment (FMA)									1.375	1.382	1.339	
									0	0	0	
FY 2012 Accomplishments: Continued to conduct FMA analysis and engineering to exploit vulnerabilities of foreign anti-radar threats. HARM Improvement includes funding for threat assessment, operational updates and integration efforts.												
FY 2013 Plans: Continue to conduct FMA analysis and engineering to exploit vulnerabilities of foreign anti-radar threats. HARM Improvement includes funding for threat assessment, operational updates and integration efforts.												
FY 2014 Plans: The FMA team will continue to conduct FMA analysis and engineering to exploit vulnerabilities of foreign weapon system threats. Focus will be on new threat systems as they become available as well as theater/country-specific systems of interest, with priorities coordinated through the ARM Steering Committee (ASC). Expect continued testing on advanced Surface-to-Air weapons and related integrated air defense systems (IADS), jammers and ARM countermeasures, and non-traditional ARM targets. One specific area of attention will be expanding collection, analysis, and definition of radar parametrics related to HARM 5A												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0205601N: <i>Harm Improvement</i>	PROJECT 1780: <i>HARM Improvement</i>
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
improvements, with feedback from full Fleet fielding in 2013. Team will continue to support Fleet engagement as a key element of engineering and analytical efforts. Includes funding for threat assessment, operational updates and integration efforts.			
Accomplishments/Planned Programs Subtotals		1.375	1.382
FY 2014			
1.339			
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy HARM software updates are provided through the Software Support Activity (SSA) at Naval Air Warfare Center - Weapons Division (NAWC-WD), China Lake, CA.			
E. Performance Metrics Successfully complete Developmental Test/Operational Test.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE				PROJECT					
1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						PE 0205601N: Harm Improvement				1780: HARM Improvement					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NAWC-WD:China Lake, CA	0.215	1.183	Nov 2011	1.187	Nov 2012	1.334	Nov 2013	-		1.334	Continuing	Continuing	Continuing
Prior Year Prod Dev costs no longer funded in FYDP	Various	Various:Various	24.732	0.000		0.000		0.000		-		0.000	0.000	24.732	
Subtotal			24.947	1.183		1.187		1.334		0.000		1.334			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Eval	WR	NAWC-WD:China Lake, CA	18.335	0.192	Nov 2011	0.189	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			18.335	0.192		0.189		0.000		0.000		0.000			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	Various:Various	0.401	0.000	Nov 2011	0.006	Nov 2012	0.005	Jan 2014	-		0.005	Continuing	Continuing	Continuing
Subtotal			0.401	0.000		0.006		0.005		0.000		0.005			
Remarks															
Contract Type for Travel is TO															
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			43.683	1.375		1.382		1.339		0.000		1.339			
Remarks															

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PE 0205601N: *Harm Improvement*
Navy

R-1 Line #181

R-1 ITEM NOMENCLATURE

PE 0205601N: *Harm Improvement*

1780: *HARM Improvement*

[illegible]

2014PB - 0205601N - 1780

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0205601N: <i>Harm Improvement</i>	PROJECT 1780: <i>HARM Improvement</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>HARM IMPROVEMENT</i>				
Acquisition Milestones: Radar System Evaluation: Radar System Evaluation - Foreign Military Assessment	1	2012	4	2018
Test & Evaluation: Lazer Guided Zuni (LGZ)	2	2012	2	2013

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0205601N: Harm Improvement				PROJECT 2185: AARGM			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2185: AARGM	650.369	6.504	6.995	12.247	-	12.247	6.749	5.971	5.057	5.125	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
Advanced Anti-Radiation Guided Missile (AARGM) transitioned a Phase III Small Business Innovative Research program to develop and demonstrate a multi-mode guidance section on a HARM airframe to System Development and Demonstration (SD&D) in FY 2003. The AARGM SD&D program was designed to integrate multi-mode guidance (passive Anti-Radiation Homing (ARH)/active Millimeter Wave (MMW) Radar/Global Positioning System (GPS)/Inertial Navigation System) on the HARM AGM-88 missile. AARGM weapon system capabilities include: active MMW terminal guidance, counter shutdown, expanded threat coverage, enhanced ARH, netted targeting real-time feed via Integrated Broadcast System (IBS) prior to missile launch, Weapon Impact Assessment (WIA) transmitted prior to detonation, GPS/point-to-point weapon navigation, and weapon employment with impact avoidance zone/missile impact zones.												
In June 2003, a successful Milestone B transitioned AARGM to a SD&D Acquisition Category 1C program. ATK Missile Systems Company was awarded the AARGM SD&D contract valued at \$222.6M. In May 2004, the contract baseline was increased to \$231.9M to accelerate incorporation of an embedded IBS-Receiver, enabling the warfighter to directly receive National intelligence data, increasing overall pilot situational awareness. Recent modifications have changed the current baseline to \$232.3M.												
The AARGM program includes 40 SD&D test articles with the follow on of 1,879 production modification kits (1,871 All-Up-Rounds (AURs)/Captive Air Training Missiles (CATMs) and 8 spares). Milestone C was achieved 4Q FY 2008, followed by a combined FY08/FY09 Low Rate Initial Production (LRIP) contract award in 1Q FY 2009. Developmental testing was completed in 2009. Initial Operational Test and Evaluation (IOT&E) was completed in 3Q FY 2012. LRIP III contract was awarded 1Q FY 2012, and deliveries began 1Q FY 2013. Full Rate Production (FRP) decision was received 20 Aug 2012 with FRP contract award on 10 Sep 2012, and deliveries beginning in Dec 2014.												
The AARGM Block 1 Upgrade program began in FY 2012 and consists of improvements and enhancements through software changes, which will enable the AGM-88E AUR, as well as the Common Munitions Built-in Test (BIT) Reprogramming Equipment (CMBRE) box 4 and 5 to correct IOT&E deficiencies and complete CPD requirements. Block 1 will improve counter measure identification, and will complete development of Target of Opportunity, MMW, IBS-R capabilities, Navigation, and WIA messages.												
Follow on Test and Evaluation (FOT&E/OT-D) in conjunction with Block 1 Upgrade will complete tactics development and support promulgation of Operational Tactics Guide (OTG). FOT&E will test Block 1 upgrade changes; complete development and integration testing of Phase III equipment (integral IBS-R and IBS-R antenna);												

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complete development and integration testing of any future capability requirements, and continue tactics development. Additionally, FOT&E may include AGM-88E extension to objective aircraft.					
In FY 2012-FY 2018, the AGM-88E AARGM program plans to develop and demonstrate the capability to engage and destroy non-traditional and Overseas Contingency Operations targets through the Destruction of Enemy Air Defenses (DEAD) missions. These developments continue Future Naval Capability Science and Technology investments by the Office of Naval Research initiated in FY 2006.					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2012	FY 2013	FY 2014
Title: Threat Data Library			2.797	0.000	1.383
Articles:			0		0
FY 2012 Accomplishments: Continued to update Electronic Intelligence files and Millimeter Wave signatures to identify track and engage new and/or improved threat radars. Continued test and assessment of threat systems. Continued to update AARGM Threat Data Library.					
FY 2014 Plans: As part of the AGM-88E Block 1 Upgrade, continue effort to update Electronic Intelligence files and Millimeter Wave signatures to identify track and engage new and/or improved threat radars. Continue test and assessment of threat systems. Develop threat data for new target sets.					
Title: AARGM Derivative Program (ADP)			3.707	3.091	1.000
Articles:			0	0	0
FY 2012 Accomplishments: Continued to develop the capability to carry-out Destruction of Enemy Defenses (DEAD) missions and to attack non-traditional and Overseas Contingency Operations (OCO) targets. Also developed new propulsion systems and data links to support warfighter needs against advancing threat systems as part of Block 1 Upgrade. Continued updates to targets.					
FY 2013 Plans: Continue to develop the capability to carry-out DEAD missions and to attack non-traditional and OCO targets. As part of Block 1 Upgrade, continue to develop new propulsion systems and data links to support warfighter needs against advancing threat systems. Continue updates to targets.					
FY 2014 Plans: As part of the Block 1 Upgrade to AGM-88E, continue to develop the capability to carry-out DEAD missions and to attack non-traditional and OCO targets. Also develop new propulsion systems and data links to support warfighter needs against advancing threat systems. Develop additional target sets capability.					
Title: Follow-on Test and Evaluation (FOT&E)			0.000	0.200	9.864
Articles:				0	0

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>					R-1 ITEM NOMENCLATURE PE 0205601N: <i>Harm Improvement</i>			PROJECT 2185: <i>AARGM</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2012	FY 2013	FY 2014	
FY 2013 Plans: Begin FOT&E for AARGM.											
FY 2014 Plans: Continue FOT&E for AARGM Block 1 utilizing COMOPTEVFOR requirements for suitable and effective for desired flights, targets and locations.											
Title: Capabilities Procurement Document (CPD) Requirements Articles:								0.000	3.704 0	0.000	
FY 2013 Plans: Block 1 Upgrade includes development of Key Performance Parameter (KPP-3) and Integrated Broadcast Service-Receiver requirements in accordance with the CPD.											
Accomplishments/Planned Programs Subtotals								6.504	6.995	12.247	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• WPN 2327: <i>HARM Mods</i>	76.561	86.721	111.902		111.902	126.154	157.852	160.620	189.696	283.185	1,355.780
Remarks											
D. Acquisition Strategy											
The AARGM program started as a Phase I Small Business Innovative Research (SBIR), Advanced Technology Program, evolved into a Phase III SBIR program, and transitioned into a System Development and Demonstration (SD&D) Acquisition Category 1C program in June 2003. The AARGM SD&D fulfills U.S. Navy operational requirements and incorporates AARGM Advanced Technology Development and Quick Bolt Advanced Concept Technology Demonstration- demonstrated system requirements. Government responsibilities for SD&D have included monitoring, technical assessment, and validation of contractor technology development and testing. Milestone C was achieved 4Q FY 2008, followed by a combined FY08/FY09 Low Rate Initial Production (LRIP) contract award in 1Q FY 2009. LRIP I deliveries commenced 3Q FY 2010. Full Rate Production (FRP) decision was received 20 Aug 2012 with FRP contract award on 10 Sep 2012 and deliveries beginning in Dec 2014. Block 1 IOC anticipated for 4Q FY 2015.											
E. Performance Metrics											
Achieved Milestone C in 2008. Completed Developmental Testing in 2009. Successfully completed Operational Test Readiness Review in 2010. Successfully completed Operational Test in 3Q FY 2012. Full Rate Production approval was granted in 4Q FY 2012, and deliveries will commence in FY 2014.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0205601N: Harm Improvement				PROJECT 2185: AARGM					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	NSMA:Arlington, VA	0.768	0.705	Nov 2011	0.000		0.000		-		0.000	7.161	8.634	
Systems Engineering	WR	NAWC-WD:China Lake, CA	60.599	4.090	Nov 2011	4.010	Nov 2012	5.295	Nov 2013	-		5.295	14.612	88.606	
Systems Engineering	WR	NAWC-AD:Patuxent River, MD	0.000	0.000	Mar 2012	0.000		0.000		-		0.000	0.000	0.000	
Software Development	WR	SPAWAR:San Diego, CA	0.000	0.263	Apr 2012	0.000		0.000		-		0.000	0.000	0.263	
Prior year Prod Dev cost no longer funded in the FYDP	Various	Various:Various	527.894	0.000		0.000		0.000		-		0.000	0.000	527.894	
Subtotal			589.261	5.058		4.010		5.295		0.000		5.295	21.773	625.397	
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies and Analyses	Various	Various:Various	0.711	0.000		0.000		0.000		-		0.000	0.100	0.811	
Prior year Support cost no longer funded in the FYDP	Various	Various:Various	6.436	0.000		0.000		0.000		-		0.000	0.000	6.436	
Subtotal			7.147	0.000		0.000		0.000		0.000		0.000	0.100	7.247	
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	WR	NAWC-WD:China Lake, CA	22.040	0.395	Nov 2011	1.623	Nov 2012	1.657	Nov 2013	-		1.657	1.286	27.001	
Operational Test & Evaluation	WR	COMOPTEVFOR:Norfolk, VA	9.797	0.182	Nov 2011	0.773	Nov 2012	4.734	Nov 2013	-		4.734	2.213	17.699	

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Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	MIPR	NSA:Ft. Meade, MD	0.000	0.240	Apr 2012	0.000		0.000		-		0.000	0.000	0.240	
Ship Shock Testing	WR	NSWC:Carderock, MD	0.000	0.010	Apr 2012	0.000		0.000		-		0.000	0.000	0.010	
Development Test & Evaluation	MIPR	DITCO:Ft. Huachuca, AZ	0.000	0.034	Nov 2011	0.000		0.000		-		0.000	0.000	0.034	
Development Test & Evaluation	SS/IDIQ	ATK:Woodland Hills, CA	0.000	0.505	Feb 2012	0.000		0.000		-		0.000	0.000	0.505	0.505
Prior year T&E cost no longer funded in the FYDP	Various	Various:Various	7.185	0.000		0.000		0.000		-		0.000	0.000	7.185	
Subtotal			39.022	1.366		2.396		6.391		0.000		6.391	3.499	52.674	
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Various:Various	3.076	0.015	Feb 2012	0.147	Feb 2013	0.115	Feb 2014	-		0.115	0.200	3.553	
Travel	WR	NAVAIR HQ:Patuxent River, MD	1.613	0.044	Nov 2011	0.017	Nov 2012	0.014	Jan 2014	-		0.014	Continuing	Continuing	Continuing
Government Engineering Support	WR	NAWC AD:Patuxent River, MD	0.000	0.021	Dec 2011	0.425	Nov 2012	0.432	Nov 2013	-		0.432	Continuing	Continuing	Continuing
Prior year Mgmt cost no longer funded in the FYDP	Various	Various:Various	10.250	0.000		0.000		0.000		-		0.000	0.000	10.250	
Subtotal			14.939	0.080		0.589		0.561		0.000		0.561			
Remarks															
Contract Type for Travel is TO															

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	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	650.369	6.504		6.995		12.247		0.000		12.247			

Remarks

Note: RDTE funding for MDAP 368 is \$648.6 and includes funding in FY11 and prior. FY12 RDTE funding through FYDP for AARGM (PU 2185) is not considered MDAP and will not agree with SAR nor DAES submissions.

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PE 0205601N: *Harm Improvement*
Navy

R-1 Line #181

APPROPRIATION/BUDGET ACTIVITY

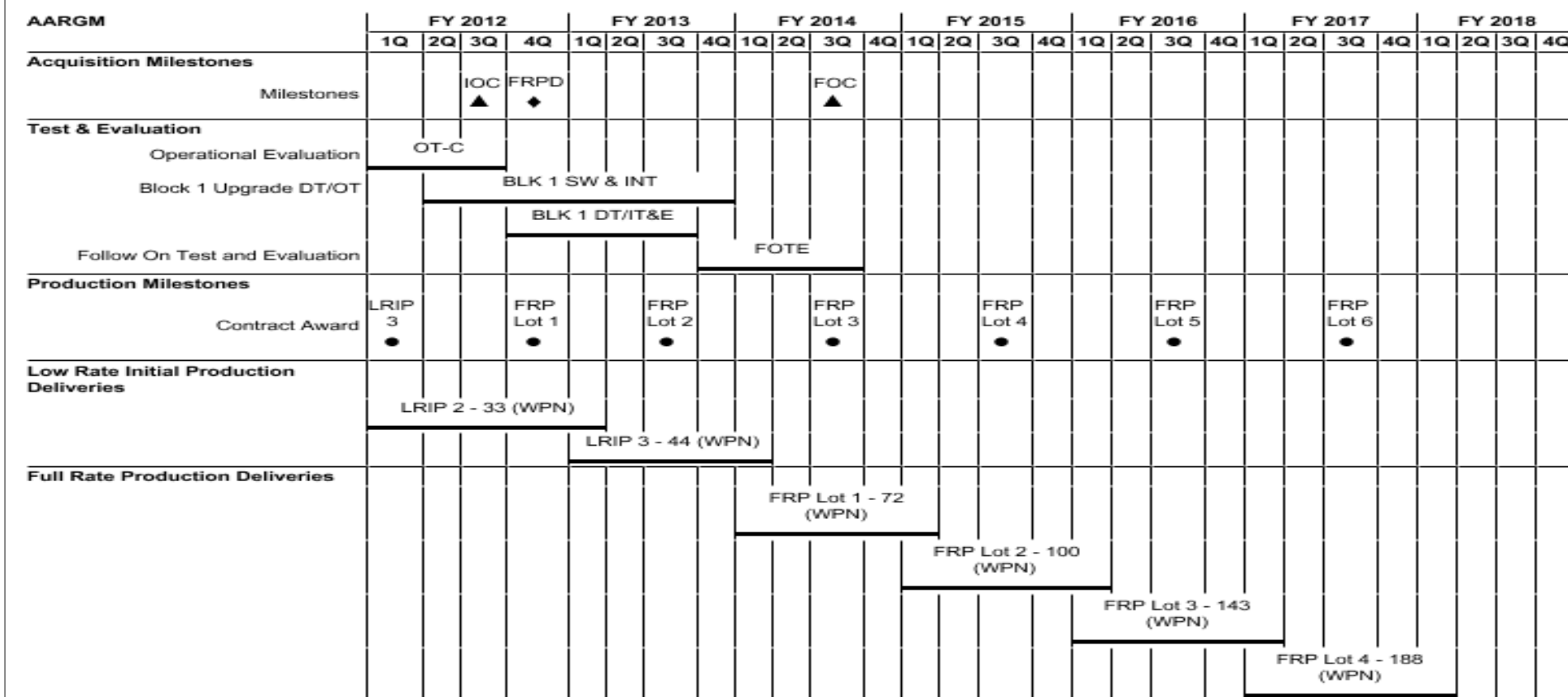
1319: *Research, Development, Test & Evaluation, Navy*

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0205601N: *Harm Improvement*

	PROJECT
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2185: *AARGM*

2014OSD - 0205601N - 2185

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0205601N: <i>Harm Improvement</i>	PROJECT 2185: <i>AARGM</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AARGM				
Acquisition Milestones: Milestones: Initial Operational Capability	3	2012	3	2012
Acquisition Milestones: Milestones: Full Rate Production Decision	4	2012	4	2012
Acquisition Milestones: Milestones: Full Operational Capability	3	2014	3	2014
Test & Evaluation: Operational Evaluation: Operational Evaluation Restart	1	2012	3	2012
Test & Evaluation: Block 1 Upgrade DT/OT: Block 1 Software Development and Integration	2	2012	4	2013
Test & Evaluation: Block 1 Upgrade DT/OT: Block 1 Upgrade Development Test/ Integrated Test and Evaluation	4	2012	3	2013
Test & Evaluation: Follow On Test and Evaluation: Follow On Test and Evaluation	4	2013	3	2014
Production Milestones: Contract Award: Low Rate Initial Production 3	1	2012	1	2012
Production Milestones: Contract Award: Full Rate Production Lot 1	4	2012	4	2012
Production Milestones: Contract Award: Full Rate Production Lot 2	3	2013	3	2013
Production Milestones: Contract Award: Full Rate Production Lot 3	3	2014	3	2014
Production Milestones: Contract Award: Full Rate Production Lot 4	3	2015	3	2015
Production Milestones: Contract Award: Full Rate Production Lot 5	3	2016	3	2016
Production Milestones: Contract Award: Full Rate Production Lot 6	3	2017	3	2017
Low Rate Initial Production Deliveries: Low-Rate Initial Production 2 Delivery (WPN)	1	2012	1	2013
Low Rate Initial Production Deliveries: Low Rate Initial Production 3 Delivery (WPN)	1	2013	1	2014
Full Rate Production Deliveries: Full Rate Production Deliveries - Lot 1 (WPN)	1	2014	1	2015
Full Rate Production Deliveries: Full Rate Production Deliveries - Lot 2 (WPN)	1	2015	1	2016
Full Rate Production Deliveries: Full Rate Production Deliveries - Lot 3 (WPN)	1	2016	1	2017
Full Rate Production Deliveries: Full Rate Production Deliveries - Lot 4 (WPN)	1	2017	1	2018

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0205601N: Harm Improvement				PROJECT 3056: Advanced Precision Kill Weapons System			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3056: Advanced Precision Kill Weapons System	0.000	2.969	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.969
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note												
Beginning in FY 2014, a new Program Element (PE) was established (BA 7 - 0605555N) for the Direct and Time Sensitive Strike Program Office to support research, development, test and evaluation of Strike Weapons employed from a multitude of fixed and rotary wing aircraft in support of offensive and defensive land and sea based targets across multiple mission areas. This project unit has been transferred to PE 0605555N.												
A. Mission Description and Budget Item Justification												
Advanced Precision Kill Weapons System (APKWS) II was an Army System Development & Demonstration (SD&D) program to develop a low cost Semi Active Laser precision guidance section for existing 2.75-inch unguided rockets. APKWS II will provide an inexpensive, small, lightweight precision-kill weapon that is effective against soft and lightly armored targets, and which enhances crew survivability with increased standoff range. APKWS II offers precision, maximum stored kills per aircraft sortie, minimum collateral damage potential, and increased effectiveness over legacy unguided rockets. The guidance package can be assembled with existing unguided rocket components (warhead and rocket motors) and can be fired from 2.75-inch Rocket Launcher. SD&D program was completed 3Q FY 2010, and Milestone C was approved in 3Q FY 2010. The Low Rate Initial Production (LRIP) 1 contract was awarded to BAE Systems in 4Q FY 2010. The LRIP II contract option was awarded to BAE Systems in 2Q FY 2011.												
The Fixed Wing Joint Capability Technology Demonstration (JCTD) is a joint USN and USAF effort sponsored by OSD and U.S. Central Command which will modify the APKWS II from the Program of Record (POR) and conduct a demonstration on USMC AV-8B and USAF A-10 aircraft. Effort is funded with OSD funds in FY 2010 and will be funded from this program element in FY 2012.												
Initial operational capability was declared in March 2012 in Afghanistan supporting Operation Enduring Freedom.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: APKWS SD&D									2.969	0.000	0.000	
									Articles: 0			
FY 2012 Accomplishments: APKWS POR - Full-Rate Production decision and contract.												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy							DATE: April 2013				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0205601N: <i>Harm Improvement</i>			PROJECT 3056: <i>Advanced Precision Kill Weapons System</i>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2012	FY 2013	FY 2014		
APKWS JCTD - Technology demonstration and Military Utility Assessment.											
Accomplishments/Planned Programs Subtotals							2.969	0.000	0.000		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• PANMC/015100: <i>Airborne Rockets (APKWS portion only)</i>	29.273	42.844	32.722		32.722	47.940	58.405	36.335	37.106	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The Navy assumed the APKWS II program from the Army. The previously competed SD&D Army contract to prime contractor was transferred to the Navy for continued management. The program was through Milestone B and meeting cost schedule and technical performance requirements. The Navy funded the remainder of the program to complete SD&D. The LRIP I contract was awarded to BAE Systems in 4Q FY 2010. The LRIP II contract was awarded to BAE Systems in 2Q FY 2011.											
E. Performance Metrics											
APKWS II Milestone C approved in April 2010.											
APKWS II LRIP I awarded in July 2010.											
APKWS II LRIP II awarded in January 2011.											
APKWS II Fixed Wing Joint Capability Technology Demonstration Military Utility Assessment is scheduled for FY 2012.											
APKWS FRP Approved May 2012											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0205601N: Harm Improvement						PROJECT 3056: Advanced Precision Kill Weapons System			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JCTD	C/CPIF	BAE:New Hampshire	0.000	1.000	Apr 2012	0.000		0.000		-		0.000	0.000	1.000	1.000
Systems Engineering	WR	NAWC-AD:Patuxent River, MD	0.000	0.325	Oct 2011	0.000		0.000		-		0.000	0.000	0.325	
Systems Engineering	WR	NAWC-WD:China Lake, CA	0.000	1.215	Nov 2011	0.000		0.000		-		0.000	0.000	1.215	
Subtotal			0.000	2.540		0.000		0.000		0.000		0.000	0.000	2.540	
Remarks Joint Capability Technology Demonstration															
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
HWIL Lab Testing	WR	Not Specified:Huntsville, AL	0.000	0.075	Jul 2012	0.000		0.000		-		0.000	0.000	0.075	
Maritime Demonstration Testing	WR	NAWC-WD:Point Mugu, CA	0.000	0.117	Dec 2011	0.000		0.000		-		0.000	0.000	0.117	
Subtotal			0.000	0.192		0.000		0.000		0.000		0.000	0.000	0.192	
Remarks HWIL - Hardware in the Loop															
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	NAWC-AD:Patuxent River	0.000	0.104	Jun 2012	0.000		0.000		-		0.000	0.000	0.104	
Program Support	C/FP	Tecolote:Patuxent River	0.000	0.117	Jan 2012	0.000		0.000		-		0.000	0.000	0.117	0.117

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0205601N: <i>Harm Improvement</i>				PROJECT 3056: <i>Advanced Precision Kill Weapons System</i>					

Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	Various:Various	0.000	0.016	Nov 2011	0.000		0.000		-		0.000	0.000	0.016	
Subtotal			0.000	0.237		0.000		0.000		0.000		0.000	0.000	0.237	

Remarks Contract Type for travel is TO															
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	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	2.969		0.000		0.000		0.000		0.000	0.000	2.969	

Remarks													
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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0205601N: Harm Improvement				PROJECT 3212: MEDUSA JCTD			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3212: MEDUSA JCTD	28.867	0.900	3.100	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	32.867
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note												
Beginning in FY 2014, a new Program Element (PE) was established (BA 7 - 0605555N) for the Direct and Time Sensitive Strike Program Office to support research, development, test and evaluation of Strike Weapons employed from a multitude of fixed and rotary wing aircraft in support of offensive and defensive land and sea based targets across multiple mission areas. This project unit has been transferred to PE 0605555N.												
A. Mission Description and Budget Item Justification												
The Medusa Joint Capability Technology Demonstration (JCTD) will demonstrate the Low Cost Guided Imaging Rockets (LOGIR) technology currently being developed at the Naval Air Warfare Center Weapons Division China Lake on the MH-60S. LOGIR provides "fire and forget" capability to 2.75-inch rockets in support of Sea Shield Pillar, increases platform lethality against Fast Attack Craft (FAC)/Fast Inshore Attack Craft (FIAC) threat, provides a low-cost Imaging InfraRed precision guidance section for the existing 2.75-inch unguided rockets and provides maximum precision kills per sortie, low cost, minimum collateral damage, increased efficiency, and increased standoff. Initial Program documentation (i.e. Performance Spec, Capabilities Development Document) will be developed within the scope of the JCTD.												
Digital Rocket Launcher (DRL) provides 2.75 inch-rocket capability on MH-60R/S in support of Sea Shield Pillar, increases lethality against FAC/FIAC threat. The addition of the APKWS guidance section for the existing 2.75 inch unguided rockets provides maximum precision kills per sortie, minimum collateral damage, increased efficiency, and increased standoff.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: MEDUSA JCTD Articles: FY 2012 Accomplishments: Funding was provided for required documentation of hardware, software, and tools suitable for starting up new/future efforts: updated Platform to Launcher and Launcher to Weapon Initial Capabilities Document and implemented critical upgrades to Modeling and Simulation tools developed during the JCTD.									0.900 0	0.000	0.000	
Title: Digital Rocket Launcher Articles: FY 2013 Plans:									0.000	3.100 0	0.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0205601N: <i>Harm Improvement</i>	PROJECT 3212: <i>MEDUSA JCTD</i>
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Funding will be used for the development of a DRL for 2.75 rockets. Delivery order with Arnold Defence & Electronics will be awarded for Test asset manufacturing. Electronic circuit boards will be assembled, and test plan completed. Aircraft integration, qualification testing and all additional test requirements to include shipboard certification testing will be completed. Class I Engineering Change Proposal will be created and completed. Naval Air Training and Operating Procedures Standardization (NATOPS) manuals, support equipment, maintenance plan and training will be updated to include DRL.			
Accomplishments/Planned Programs Subtotals		0.900	3.100
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy The MEDUSA Joint Capability Technology Demonstration was performed in FY09-FY11. The DRL is a Rapid Deployment Capability with Early Operational Capability in FY14 which will be a combination of procurement from government and contractor sources for the final product.			
E. Performance Metrics Integration and Demonstration is scheduled to continue until 2Q FY12. Performance Spec and Capability Development Document will be completed in 4Q FY12.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0205601N: Harm Improvement				PROJECT 3212: MEDUSA JCTD					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NAWC-WD:China Lake, CA	7.878	0.900	Jun 2012	0.000		0.000		-		0.000	0.000	8.778	
Product Development (DRL)	C/CPFF	Lockheed Martin:Owego, NY	2.000	0.000		0.514	Jan 2013	0.000		-		0.000	0.000	2.514	2.514
Systems Engineering (DRL)	WR	NAWC-AD:Patuxent River, MD	0.781	0.000		0.255	Nov 2012	0.000		-		0.000	0.000	1.036	
Systems Engineering (DRL)	Various	NSWC:Indian Head, MD	2.673	0.000		0.400	Dec 2012	0.000		-		0.000	0.000	3.073	
Prior year Prod Dev cost no longer funded in the FYDP	Various	Various:Various	10.383	0.000		0.000		0.000		-		0.000	0.000	10.383	
Subtotal			23.715	0.900		1.169		0.000		0.000		0.000	0.000	25.784	
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation (DRL)	WR	NSWC:Indian Head, MD	0.000	0.000		0.400	Feb 2013	0.000		-		0.000	0.000	0.400	
Test & Evaluation (DRL)	WR	NAWC-WD:China Lake, CA	0.000	0.000		0.750	Jan 2013	0.000		-		0.000	0.000	0.750	
Test & Evaluation (DRL)	WR	NAWC-AD:Patuxent River, MD	0.000	0.000		0.400	Dec 2012	0.000		-		0.000	0.000	0.400	
Prior year T&E costs no longer funded in the FYDP	Various	Various:Various	4.464	0.000		0.000		0.000		-		0.000	0.000	4.464	
Subtotal			4.464	0.000		1.550		0.000		0.000		0.000	0.000	6.014	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>							R-1 ITEM NOMENCLATURE PE 0205601N: <i>Harm Improvement</i>					PROJECT 3212: <i>MEDUSA JCTD</i>			

Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWC-AD:Patuxent River, MD	0.000	0.000		0.350	Dec 2012	0.000		-		0.000	0.000	0.350	
Travel	WR	NAVAIR:Patuxent River, MD	0.021	0.000		0.031	Dec 2012	0.000		-		0.000	0.000	0.052	
Prior year Mgmt costs no longer funded in the FYDP	Various	Various:Various	0.667	0.000		0.000		0.000		-		0.000	0.000	0.667	
Subtotal			0.688	0.000		0.381		0.000		0.000		0.000	0.000	1.069	

Remarks
 Contract Type for Travel is TO.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	28.867	0.900		3.100		0.000		0.000		0.000	0.000	32.867	

Remarks
 NOTE: This project has been moved to a new PE - 0605555N - all Cost to Complete information will be reflected under the new PE.

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy																			DATE: April 2013									
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development									R-1 ITEM NOMENCLATURE PE 0205601N: Harm Improvement									PROJECT 3212: MEDUSA JCTD										
Digital Rocket Launcher (DRL) & MEDUSA JCTD	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Acquisition Milestones																												
Milestones																												
System Development & Demonstration																												
Capability Development Document and Performance Spec				CDD & Perf Spec (MEDUSA) ▼																								
DRL Design	DRL Design																											
Technical Readiness Review (DRL)				TRR ■																								
Interim Flight Clearance (DRL)			IFC ▼																									
Test & Evaluations Milestones																												
Integration & Demonstration	Int & Demo (MEDUSA)																											
Regression Test	RGT (MEDUSA) ▼																											
Captive Carry Test		CC (MEDUSA) ▼																										
A/C Software Development and Software Test (DRL)			A/C Test																									
Vibration Testing (DRL)			Test ▼																									
1st Ground Launch Test (DRL)		Ground Test ▼																										
2014PB - 0205601N - 3212																												

2014PB - 0205601N - 3212

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0205601N: <i>Harm Improvement</i>	PROJECT 3212: <i>MEDUSA JCTD</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Digital Rocket Launcher (DRL) & MEDUSA JCTD</i>				
System Development & Demonstration: Capability Development Document and Performance Spec: Capability Development Document (and Performance Spec MEDUSA-JCTD)	4	2012	4	2012
System Development & Demonstration: DRL Design: DRL Design	1	2012	2	2012
System Development & Demonstration: Technical Readiness Review (DRL): Technical Readiness Review (DRL)	4	2012	4	2012
System Development & Demonstration: Interim Flight Clearance (DRL): interim flight clearance (DRL)	3	2012	3	2012
Test & Evaluations Milestones: Integration & Demonstration: Integration & Demonstration (MEDUSA-JCTD)	1	2012	2	2012
Test & Evaluations Milestones: Regression Test: Regression Test (MEDUSA JCTD)	1	2012	1	2012
Test & Evaluations Milestones: Captive Carry Test: Captive Carry Tests (MEDUSA JCTD)	2	2012	2	2012
Test & Evaluations Milestones: A/C Software Development and Software Test (DRL): A/C Software Development and Software Test (DRL)	3	2012	3	2012
Test & Evaluations Milestones: Vibration Testing (DRL): Vibration Testing (DRL)	3	2012	3	2012
Test & Evaluations Milestones: 1st Ground Launch Test (DRL): 1st Ground Launch Test (DRL)	2	2012	2	2012