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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 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev							
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	787.993	93.692	51.304	34.964	-	34.964	35.819	24.502	25.068	25.349	Continuing	Continuing
0556: EW Counter Response	389.531	19.756	19.728	19.739	-	19.739	20.213	20.126	20.639	20.948	Continuing	Continuing
1742.: EW Technical Development and T&E	25.318	1.739	1.702	1.352	-	1.352	1.652	1.642	1.665	1.596	Continuing	Continuing
2175: Tactical Air Electronic Warfare	373.144	60.268	29.874	13.873	-	13.873	13.954	2.734	2.764	2.805	Continuing	Continuing
3327: MAGTF EW Aviation Development	0.000	11.929	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	11.929
MDAP/MAIS Code(s): 418												
[#] 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												
This program element includes development of Electronic Warfare (EW) systems for the United States Navy (USN), United States Marine Corps (USMC), and United States Army tactical aircraft, USMC helicopters, surface combatants, data link vulnerability assessments, precision targeting, USN and USMC radio frequency jammers, and development and testing of electronic warfare devices for emerging threats and emergency contingencies.												
This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.												

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0604270N: Electronic Warfare (EW) Dev			
BA 5: System Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	95.018	51.304	35.988	-	35.988
Current President's Budget	93.692	51.304	34.964	-	34.964
Total Adjustments	-1.326	0.000	-1.024	-	-1.024
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.422	0.000			
• SBIR/STTR Transfer	-1.748	0.000			
• Program Adjustments	0.000	0.000	-0.370	-	-0.370
• Rate/Misc Adjustments	0.000	0.000	-0.654	-	-0.654
Change Summary Explanation					
Technical:					
Project Unit 0556 / EW COUNTER RESPONSE: Not Applicable					
Project Unit 1742 / EW TECHNICAL DEVELOPMENT & T&E: Not Applicable					
Project Unit 2175 / TACTICAL AIR ELECTRONIC WARFARE (EW): Not Applicable					
Project Unit 3327 / Marine Air Ground Task Force (MAGTF) EW AVIATION DEVELOPMENT: Not Applicable					
Schedule:					
Project Unit 0556 / EW COUNTER RESPONSE: Availability of test aircraft caused Developmental Testing and Fleet Release of ICAP III Block 7 to shift to the right.					
Project Unit 1742 / EW TECHNICAL DEVELOPMENT & T&E: Not Applicable					
Project 2175 / TACTICAL AIR EW: Integrated Defensive Electronic Countermeasure Block 2 (IB-2): Not Applicable					
IDECM Block 3 (IB-3): Not Applicable					
IDECM Block 4 (IB-4): Not Applicable					
ALQ-214 Software Improvement: Not Applicable					
Project Unit 3327 / MAGTF EW AVIATION DEVELOPMENT: Not Applicable.					

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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 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev				PROJECT 0556: EW Counter Response			
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
0556: EW Counter Response	389.531	19.756	19.728	19.739	-	19.739	20.213	20.126	20.639	20.948	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												
This project develops upgrades to combat the increasingly complex and dense Electronic Warfare (EW) threat environment. Required improvements in Airborne Electronic Attack (AEA) will achieve application of state-of-the-art signal exploitation, processing, display techniques, improved tactics, and jamming capabilities against EW threats.												
Efforts include continued development of Force Protection/Overseas Contingency Operations (classified discussion available upon request) Navigation and Information Operations applications and enhanced communications jamming. Efforts also include risk reduction activities to support the upgrade of the ALQ-99 low band capabilities to include technology studies, breadboard/demonstrator development, and teseting in laboratory and relevant environments. The efforts under this project provide for electronic countermeasure responses to advanced threat weapon systems and C3 networks that are expanding in density and technical complexity. This project funds the continued development and integration of all EW and Electronic Attack systems for the US Navy electronic attack aircraft including improvements within precision Direction of Arrival, geo-location, Specific Emitter Identification, Auto-Electronic Support Measures, and selective reactive jamming.												
The EA-6B Improved Capability (ICAP) III test aircraft will continue to serve as a test platform during government test and evaluation of Multi Functional Information Distribution Systems/Link-16, Low Band Transmitter, and other EW improvements. A requirement exists to allow the EA-6B ICAP III to participate in various coordinated targeting scenarios such as Network Centric Warfare, Force Net, Improved Suppression of Enemy Air Defenses/Destruction of Enemy Air Defenses, and other strategic and theatre-based DOD networks and strategies. Likewise, the ICAP III system shall be matured to enable the fusion and correlation of both organic and non-organic threat information to improve present sensor and targeting information to the theatre commander via coordinated efforts between other airborne, ground and ship-based operations. A method of implementing this requirement is to include the EA-6B on the Link-16 EW Network. Incorporation of the Link-16 message set into the EA-6B and participation of the ICAP III within the Network Centric Warfare arena improves the Strike Group Commander's situational awareness. All efforts and system upgrades include the conversion of and transition from the Tactical EA-6B Mission Planning System to the Joint Mission Planning System, including development of EA-6B Unique Planning Modules.												
Electronic Attack Jammer Techniques Optimization (JATO) and test support is required to address and counter new and evolving radar and communications threats in support of existing and emerging systems such as the EA-6B, EA-18G, and Next Jeneration Jammer (NGJ). JATO will continue to generate techniques, tactics, and procedures that will optimize the capabilities of existing weapon systems, and to assist in requirements definitions of emerging AEA systems.												

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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 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev	PROJECT 0556: EW Counter Response		
The Airborne Electronic Attack Expendable provides an expanded war fighting capability, on an expendable host platform against EW threats including; Integrated Air Defenses, Command and Control Communications, and Datalinks through an open Electronic Attack Subsystem interface specification. This flexible system allows rapid technology insertion and threat set adaptability that will address AEA capability and sufficiency gaps.				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Title: ICAP III UPDATE		5.159	4.459	4.504
Articles:		0	0	0
FY 2012 Accomplishments: Successful software development program for ICAP III Block 5. Achieved successful Developmental Testing and received approval via an Operational Test Readiness Review (OTRR) to enter Operational Test. Improved the system stability of the SW from 9 mean flight hours between operational mission failures (MFHBOMF) to more than 54 MFHBOMF.				
FY 2013 Plans: Continue development, integration, and enhancement of Link-16 and ALQ-218 Capabilities into ICAP III Aircraft as well as resolving OPEVAL and FOT&E related deficiencies via ICAP III Block releases.				
FY 2014 Plans: Continue development, integration, and enhancement of Link-16 J-28.2 Free Text Message Capability and ALQ-218 Capabilities into ICAP III Aircraft as well as resolving OPEVAL and FOT&E related deficiencies via ICAP III Block release.				
Title: MISSION PLANNING		3.149	2.350	2.405
Articles:		0	0	0
FY 2012 Accomplishments: Achieved successful initial software development and testing of the Mission Planning Environment with respect to upgrading the operating framework and transition from a Windows XP platform to a Windows 7 platform. New framework required to counter Microsoft Operating System obsolescence.				
FY 2013 Plans: Continue development of all elements of the mission planning environment including Unique Planning Components (UPC), EA-6B Tactical Information & Report Management System and Electronic Warfare Development System. Mission Planning Environment will continue development of an upgrade operating framework and transition from a Windows XP platform to a Windows 7 platform. New framework required to counter Microsoft Operating System obsolescence.				
FY 2014 Plans: Continue development of all elements of the mission planning environment including UPCs, EA-6B Tactical Information & Report Management System and Electronic Warfare Development System. Mission Planning Environment will continue development of				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
an upgrade operating framework and transition from a Windows XP platform to a Windows 7 platform. New framework required to counter Microsoft Operating System obsolescence.			
Title: LINK 16 MESSAGE SETS AND DATA LINKS FY 2012 Accomplishments: Continued development and testing of the Link-16 modification. These data link enhancements will enable the EA-6B ICAP III continued participation within Force Net and facilitate the Electronic Attack contributions to the greater situational awareness allowed by Network Centric Warfare efforts. *Beginning in FY13, LINK 16 Message Sets and Data Links will be funded under Program Element 0604376M Project Unit 3327, MAGTF EW Aviation Development, as EA-6B Multifunctional Information Distribution Systems Block Upgrade.		0.931 0	0.000
Title: JAMMER TECHNIQUES OPTIMIZATION (JATO) FY 2012 Accomplishments: Continued engineering development and test support required to address new and evolving radar/communications threats in support of existing and emerging systems such as the EA-6B, EA-18G, and Next Generation Jammer. Jammer Techniques Optimization (JATO) will continue to generate techniques, tactics, and procedures to optimize the capabilities of ALQ-99, USQ-113, ALQ-218, ALQ-227, ALQ-231, ALE-43, and Airborne Electronic Attack Expendable (AEAE) systems, and to assist in requirements definitions of emerging Airborne Electronic Attack (AEA) systems. JATO continues to lead efforts in support of Overseas Contingency Operation and Force Protection issues. (Classified discussion available upon request.) FY 2013 Plans: Provide engineering development and test support required to address new and evolving radar/communications threats in support of existing and emerging systems such as the EA-6B, EA-18G, and Next Generation Jammer. Jammer Techniques Optimization (JATO) will continue to generate techniques, tactics, and procedures to optimize the capabilities of ALQ-99, USQ-113, ALQ-218, ALQ-227, ALQ-231, ALE-43, and Airborne Electronic Attack Expendable (AEAE) systems, and to assist in requirements definitions of emerging Airborne Electronic Attack (AEA) systems. JATO continues to lead efforts in support of Overseas Contingency Operation and Force Protection issues. (Classified discussion available upon request.) FY 2014 Plans: Continue engineering development and test support required to address new and evolving radar/communications threats in support of existing and emerging systems such as the EA-6B, EA-18G, and Next Generation Jammer. Jammer Techniques Optimization (JATO) will continue to generate techniques, tactics, and procedures to optimize the capabilities of ALQ-99,		10.182 0	11.033 0
		10.994 0	

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
USQ-113, ALQ-218, ALQ-227, ALQ-231, ALE-43, and Airborne Electronic Attack Expendable (AEAE) systems, and to assist in requirements definitions of emerging Airborne Electronic Attack (AEA) systems. JATO continues to lead efforts in support of Overseas Contingency Operation and Force Protection issues. (Classified discussion available upon request.)			FY 2014
Title: Airborne Electronic Attack Expendable (AEAE)		0.335	1.886
Articles:		0	1.836
FY 2012 Accomplishments: The AEAE project continued risk reduction efforts including scope development, CONOP refinement, engineering analysis, and data gathering on the ADM-160 Miniature Air Launched Decoy for F/A-18 E/F carriage. Other efforts included threat analysis and capability improvements for the Electronic Attack System payload. Conducted threat effectiveness review for Area of Regard defined threat sets utilizing fleet operator inputs. Project also continued to refine the maintenance concept and requirements for training, planning, and supportability.			0
FY 2013 Plans: Develop Instrumented Measurement Vehicles for carrier suitability and airborne flight test and evaluation. Characterize vibration and shock forces associated with F/A-18EF carrier catapult take-offs and arrested landings. Develop accurate mathematical models for wind tunnel simulation and test. Perform wind tunnel safe-separation and transition-to-flight tests for vehicle risk analysis and risk mitigation. Develop F/A-18EF Airborne Electronic Attack Expendable (AEAE) Unique Planning Component for integration into the F/A-18EF Joint Mission Planning System Mission Planning Environment and H12 Software Configuration Set. Develop and evaluate Electronic Warfare payloads for integration into AEAE platform. Integrate standard payload interface into the vehicle baseline and develop documentation in support of the Joint Capabilities Integration and Development System process to include a Capabilities Development Document.			
FY 2014 Plans: Continue development of Instrumented Measurement Vehicles for carrier suitability and airborne flight test and evaluation. Characterize vibration and shock forces associated with F/A-18EF carrier catapult take-offs and arrested landings. Develop accurate mathematical models for wind tunnel simulation and test. Perform wind tunnel safe-separation and transition-to-flight tests for vehicle risk analysis and risk mitigation. Develop F/A-18EF Airborne Electronic Attack Expendable (AEAE) Unique Planning Component for integration into the F/A-18EF Joint Mission Planning System Mission Planning Environment and H12 Software Configuration Set. Develop and evaluate Electronic Warfare payloads for integration into AEAE platform. Integrate standard payload interface into the vehicle baseline and develop documentation in support of the Joint Capabilities Integration and Development System process to include a Capabilities Development Document.			
Accomplishments/Planned Programs Subtotals		19.756	19.728
			19.739

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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
• APN/05110: EA-6 Series	22.529	30.062	18.577		18.577	14.097	10.054	6.390	7.564	Continuing	Continuing
• APN/05130: AEA Systems	82.365	49.999	48.502		48.502	59.590	43.591	41.855	42.532	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The Improved Capability (ICAP) III contract, an Engineering Manufacturing Development Cost Plus Incentive Fee/Award Fee basic contract with two Fixed Price Incentive production options, was awarded to a Northrop Grumman team in March 1998 following Milestone II after full and open competition. The contract was changed to a Cost Plus Award Fee contract in FY 1999. Low Rate Initial Production contract award was completed in FY 2003. A Milestone III Navy Program Decision Meeting was held on 23 September 2005. The Acquisition Decision Memorandum was signed by Assistant Secretary of the Navy for Research Development Acquisition on 21 November 2005. A Firm Fixed Price Full Rate Production (FRP) contract for Lot 2, 4 ALQ-218 systems, was awarded in March 2006. The FRP Lot 3 contract for 7 ALQ-218 systems was awarded 11 April 2008. The FRP Lot 4 contract for 9 ALQ-218 systems was awarded in August 2008.											
E. Performance Metrics											
1. Successful completion in the development of ICAP III Block 6 software for the Operational Flight Plan (OFP). 2. Successful completion of ICAP III Block 6 development and testing. 3. Jammer Techniques Optimization development counters enemy radar systems and communication systems to provide techniques to protect allied forces. 4. Airborne Electronic Attack Expendable continues risk reduction and system development.											

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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 5: System Development & Demonstration (SDD)						R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev				PROJECT 0556: EW Counter Response					
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 HDW Develop - ICAP III	C/FFP	Various:Various	260.171	0.533	Dec 2011	0.500	Dec 2012	0.500	Dec 2013	-		0.500	Continuing	Continuing	Continuing
Studies & Analysis (Non FFRDC)	C/FFP	Various:Various	1.043	0.000		0.000		0.000		-		0.000	0.000	1.043	1.043
Systems Engineering NR	WR	Naval Research Lab:Maryland	4.333	0.446	Dec 2011	0.409	Dec 2012	1.200	Dec 2013	-		1.200	Continuing	Continuing	Continuing
Systems Engineering NAWCAD	WR	NAWCAD:Patuxent River, MD	17.729	2.294	Nov 2011	2.443	Nov 2012	2.477	Nov 2013	-		2.477	Continuing	Continuing	Continuing
Systems Eng/BLK Update	WR	NAWCWD:Point Mugu, CA	53.504	5.455	Nov 2011	6.126	Nov 2012	7.547	Nov 2013	-		7.547	Continuing	Continuing	Continuing
Systems Engineering NSWC	WR	NSWC Det:Crane, IN	8.258	0.755	Dec 2011	0.718	Dec 2012	1.165	Dec 2013	-		1.165	Continuing	Continuing	Continuing
Systems Engineering VAR	WR	Various:Various	12.775	1.112	Dec 2011	1.075	Dec 2012	0.456	Dec 2013	-		0.456	Continuing	Continuing	Continuing
Subtotal			357.813	10.595		11.271		13.345		0.000		13.345			
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
Development Support - JATO	SS/FP	Johns Hopkins Univ:Maryland	20.642	4.035	Dec 2011	3.993	Dec 2012	2.719	Dec 2013	-		2.719	Continuing	Continuing	Continuing
Eng & Tech Srvc (Non FFRDC)	Various	Various:Various	8.472	4.567	Dec 2011	3.979	Dec 2012	3.400	Dec 2013	-		3.400	Continuing	Continuing	Continuing
DFCS Installs	Various	Various:Various	0.559	0.000		0.000		0.000		-		0.000	0.000	0.559	0.559
ILS Pubs - ICAP III	WR	FRC:Jacksonville, FL	1.273	0.424	Dec 2011	0.387	Dec 2012	0.175	Dec 2013	-		0.175	Continuing	Continuing	Continuing
Subtotal			30.946	9.026		8.359		6.294		0.000		6.294			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013		
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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	Various:Various	0.772	0.135	Dec 2011	0.098	Dec 2012	0.100	Dec 2013	-		0.100	Continuing	Continuing	Continuing
Subtotal			0.772	0.135		0.098		0.100		0.000		0.100			

	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	389.531	19.756	19.728	19.739	0.000	19.739			

Remarks

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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 5: System Development & Demonstration (SDD)										R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev										PROJECT 0556: EW Counter Response																	
EW Counter Response										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				
Acquisition Milestones																																					
Milestones										Fleet Release - ICAP III BLOCK 5 ▼																											
Systems Development																																					
Hardware Development																																					
Software Development																																					
Reviews										JATO ESC ■																											
Test & Evaluation																																					
Technical Evaluation																																					
Operational Evaluation										ICAP III Block 6 DT/OT																											
Production Milestones																																					
Contract Awards																																					
Deliveries																																					
Lot 4 Deliveries (Qty 9)																																					
2014PB - 0604270N - 0556																																					

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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 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270N: <i>Electronic Warfare (EW) Dev</i>	PROJECT 0556: <i>EW Counter Response</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>EW Counter Response</i>				
Acquisition Milestones: Milestones: Fleet Release - ICAP III BLOCK 5	2	2013	2	2013
Acquisition Milestones: Milestones: Fleet Release - ICAP III BLOCK 6	4	2014	4	2014
Acquisition Milestones: Milestones: Fleet Release - ICAP III BLOCK 7	3	2016	3	2016
Systems Development: Reviews: JATO Executive Steering Committee 2012	3	2012	3	2012
Systems Development: Reviews: JATO Executive Steering Committee 2013	3	2013	3	2013
Systems Development: Reviews: JATO Executive Steering Committee 2014	3	2014	3	2014
Systems Development: Reviews: JATO Executive Steering Committee 2015	3	2015	3	2015
Systems Development: Reviews: JATO Executive Steering Committee 2016	3	2016	3	2016
Systems Development: Reviews: JATO Executive Steering Committee 2017	3	2017	3	2017
Systems Development: Reviews: JATO Executive Steering Committee 2018	3	2018	3	2018
Test & Evaluation: Operational Evaluation: ICAP III Block 6 DT/OT	2	2013	3	2014
Test & Evaluation: Operational Evaluation: ICAP III Block 7 DT/OT	2	2015	2	2016
Deliveries: ICAP III - Lot 4 FRP Deliveries (Qty 9)	1	2012	1	2012

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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
1742.: EW Technical Development and T&E	25.318	1.739	1.702	1.352	-	1.352	1.652	1.642	1.665	1.596	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												
This program element includes development of Electronic Warfare (EW) systems for the United States Navy (USN), United States Marine Corps (USMC), and United States Army tactical aircraft, USMC helicopters, surface combatants, data link vulnerability assessments, precision targeting, USN and USMC radio frequency jammers, and development and testing of electronic warfare devices for emerging threats and emergency contingencies.												
This project funds efforts that focus on the quick reaction prototyping of tactical information and electronic warfare systems. This program directly addresses various Fleet requirements across multiple platforms (airborne, surface and subsurface), airborne and surface cryptologic operational requirements documents and the joint oversight council missions needs statement to research, assess, and develop information warfare and electronic warfare systems and capabilities. These systems/ capabilities provide information dominance to friendly forces during conflict, which is necessary for successful mission accomplishment.												
Project Unit 1742 EW Technical Development and Test and Evaluation (T&E) funds efforts that focus on the quick reaction prototyping of tactical information and electronic warfare systems. This program directly addresses various fleet requirements across multiple platforms (airborne, surface and subsurface), airborne and surface cryptologic operational requirements documents and the joint oversight council missions needs statement to research, assess, and develop information warfare and electronic warfare systems and capabilities. These systems/capabilities provide information dominance to friendly forces during conflict, which is necessary for successful mission accomplishment.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Electronic Warfare Technical Development Studies and Test & Evaluation Articles: Description: This project funds efforts that focus on the quick reaction prototyping of tactical information and electronic warfare systems. FY 2014 Plans: Continue studies and vulnerability analysis on emerging/changing threats/targets for EW programs.									0.000	0.000	1.352 0	
Title: EW Technical Development Studies & Analysis Articles:									1.539 0	1.500 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 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270N: <i>Electronic Warfare (EW) Dev</i>	PROJECT 1742.: <i>EW Technical Development and T&E</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
<i>FY 2012 Accomplishments:</i> Continued studies and vulnerability analysis on emerging/changing threats/targets for EW programs.			
<i>FY 2013 Plans:</i> Continue studies and vulnerability analysis on emerging/changing threats/targets for EW programs.			
<i>Title:</i> EW Technical Development/Program Management <i>Articles:</i>	0.200 0	0.202 0	0.000
<i>FY 2012 Accomplishments:</i> Continued funding necessary travel expenses and training to support the Research & Development projects.			
<i>FY 2013 Plans:</i> Continue funding necessary travel expenses and training to support the Research & Development projects.			
Accomplishments/Planned Programs Subtotals	1.739	1.702	1.352

C. Other Program Funding Summary (\$ in Millions)	
N/A	
Remarks	

D. Acquisition Strategy	
BSO 60: Development of classified prototypes and special capabilities. The Navy Cyber Warfare Development Group (NCWDG) (formerly known as the Navy Information Operations Command (NIOC) Suitland) is granted streamlined acquisition authority for the development of classified prototypes and special capabilities under the DASN(C4I).	

E. Performance Metrics	
BSO 60: Research, assess and develop EW/IW capabilities. The NCWDG serves as the Program Management Office of the EW Technical Development and Information Warfare (IW) program. As such, NCWDG is tasked as the Navy's principal technical agent to research, assess, and develop EW/IW capabilities.	

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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						PE 0604270N: Electronic Warfare (EW) Dev				1742.: EW Technical Development and T&E					
BA 5: System Development & Demonstration (SDD)															
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	C/CPFF	Classified:Various	3.604	0.000		0.000		0.000		-		0.000	0.000	3.604	
Aircraft Integration	WR	NAWC CL:China Lake, CA	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	
Subtotal			5.204	0.000		0.000		0.000		0.000		0.000	0.000	5.204	
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 Analysis	Various	Classified:Various	0.000	0.000		0.000		1.140	Oct 2013	-		1.140	Continuing	Continuing	Continuing
Development Support	C/CPFF	Classified:Various	2.987	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	2.987	
Software Development	C/CPFF	Classified:Various	3.944	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	3.944	
Studies & Analyses	Various	Classified:Various	7.974	1.539	Nov 2011	1.500	Nov 2012	0.000		-		0.000	0.000	11.013	
Subtotal			14.905	1.539		1.500		1.140		0.000		1.140			
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
Developmental Test & Evaluation	WR	NRL:Washington, DC	2.890	0.000		0.000		0.000		-		0.000	0.000	2.890	
Subtotal			2.890	0.000		0.000		0.000		0.000		0.000	0.000	2.890	
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 Personnel	Various	Classified:Various	0.000	0.000		0.000		0.100	Oct 2013	-		0.100	0.000	0.100	

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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 5: <i>System Development & Demonstration (SDD)</i>							R-1 ITEM NOMENCLATURE PE 0604270N: <i>Electronic Warfare (EW) Dev</i>				PROJECT 1742.: <i>EW Technical Development and T&E</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	NCWDG:Washington, DC	0.000	0.000		0.000		0.112	Oct 2013	-		0.112	0.000	0.112	
Program Management	Various	Classified:Various	0.905	0.085	Oct 2011	0.084	Oct 2012	0.000		-		0.000	0.000	1.074	
Travel	WR	NCWDG:Washington DC	1.388	0.115	Oct 2011	0.118	Oct 2012	0.000		-		0.000	0.000	1.621	
Acquisition Workforce Fund - 2009	Various	Various:Various	0.026	0.000		0.000		0.000		-		0.000	0.000	0.026	
Subtotal			2.319	0.200		0.202		0.212		0.000		0.212	0.000	2.933	

Remarks Provides for official travel and training in direct support of Research & Development projects.															
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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	25.318	1.739		1.702		1.352		0.000		1.352			

Remarks															
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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy																				DATE: April 2013								
APPROPRIATION/BUDGET ACTIVITY										R-1 ITEM NOMENCLATURE										PROJECT								
1319: Research, Development, Test & Evaluation, Navy										PE 0604270N: Electronic Warfare (EW) Dev										1742.: EW Technical Development and T&E								
BA 5: System Development & Demonstration (SDD)																												
Proj 1742.L60	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
BSO 60: Vulnerability Analysis Discovery																												

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PE 0604270N: *Electronic Warfare (EW) Dev*
Navy

R-1 Line #95

APPROPRIATION/BUDGET ACTIVITY
1319: Research, Development, Test & Evaluation, Navy
BA 5: System Development & Demonstration (SDD)

PE 0604270N: *Electronic Warfare (EW) Dev*1742.: *EW Technical Development and T&E*[illegible]

2014 OSD - 0604270N - 1742.S39

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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 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270N: <i>Electronic Warfare (EW) Dev</i>	PROJECT 1742.: <i>EW Technical Development and T&E</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 1742.L60				
BSO 60: Vulnerability Analysis Discovery: Vulnerability Analysis Discovery	1	2014	4	2018
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 1 2012	1	2012	1	2012
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 2 2012	2	2012	2	2012
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 3 2012	3	2012	3	2012
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 4 2012	4	2012	4	2012
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 1 2013	1	2013	1	2013
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 2 2013	2	2013	2	2013
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 3 2013	3	2013	3	2013
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 4 2013	4	2013	4	2013

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE				PROJECT			
1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)					PE 0604270N: Electronic Warfare (EW) Dev				2175: Tactical Air Electronic Warfare			
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
2175: Tactical Air Electronic Warfare	373.144	60.268	29.874	13.873	-	13.873	13.954	2.734	2.764	2.805	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

Integrated Defensive Electronic Countermeasures (IDECM) Block 3 (IB-3) introduced the new Fiber Optic Towed Decoy (FOTD) capability to the IDECM Block 2 Electronic Warfare (EW) Suite as a replacement for the ALE-50 decoy. The FOTD, when integrated with the rest of the F/A-18E/F EW suite (i.e., ALQ-214, ALR-67(V)3, ALE-47 and ALE-50), the associated cockpit controls, displays and other avionics significantly improves the survivability of the host aircraft in a Radio Frequency threat environment. IB-3 MS III (Full Rate Production Decision) was approved in the 4th Qtr FY2011. IB-3 Initial Operational Capability (IOC) achieved 4th Qtr FY2011.

IDECM Block 4 (IB-4) is an Engineering Change Proposal (ECP) to the ALQ-214 to render it suitable for operation on F/A-18C/D aircraft (replacing the ALQ-126B and significantly improving F/A-18C/D survivability) while retaining all IDECM suite functionality when installed on F/A-18E/F aircraft. The IB-4 acquisition and contract strategy includes development of the Common On-Board-Jammer for the F/A-18 C/D/E/F aircraft through sole source contract awards for modifications to the ALQ-214. IB-4, ALQ-214 ECP, efforts include hardware and software design, development and test, delivery of 18 Engineering Development Models, integration and testing on the host aircraft. The F/A-18C/D EW Suite includes the ALR-67(V)2 Radar Warning Receiver (RWR), the ALE-47 Countermeasures Dispensing Set (CMDS), the mission computer and other avionics. In addition to performing the RWR function, the ALR-67(V)2 is the EW Bus Controller. The EW Bus is the primary interface between the EW Systems (Jammer, RWR, and CMDS). The mission computer is the Avionics Bus Controller, the interface between the EW suite and other avionics.

ALQ-214 Software Improvement will provide the ALQ-214 with Digital Radio Frequency Memory deny-delay, technique capability significantly improving F/A-18C/D/E/F survivability. Acquisition and contract strategy includes development, integration and test of the ALQ-214 software improvements through sole-source contract award. Minor modification to other avionics are required in order to integrate this new capability. These other avionics may include, but are not limited to, the ALR-67(V)2, ALR-67(V)3, ALE-47, ALE-50, ALE-55, Mission Computer and Fire Control Radar.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

		FY 2012	FY 2013	FY 2014
Title: Tactical Air EW		60.268	29.874	13.873
	Articles:	0	0	0
FY 2012 Accomplishments: The Integrated Defensive Electronic Countermeasures (IDECM) Block 4, ALQ-214 Engineering Change Proposal (ECP) engineering effort continued into FY2012. IDECM Block 4 In-Process Review (IPR)3 was conducted 3rd quarter FY2012. The				

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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 5: System Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev				PROJECT 2175: Tactical Air Electronic Warfare				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
ALQ-214 Software Improvement contract awarded 2nd quarter FY2012 and included development, integration and test of the ALQ-214 with Digital Radio Frequency Memory deny-delay, technique capability. Successfully completed Software Improvement Design Review 1 in 3rd quarter FY 2012.												
FY 2013 Plans: The IDECM Block 4, ALQ-214 ECP engineering effort will conclude in FY2013. Flight testing for the ALQ-214 ECP will resume. The ALQ-214 Software Improvement contract will continue into FY2013 and will include engineering and logistics support.												
FY 2014 Plans: The IDECM Block 4 In-Process Review (IBR) planned 2nd Qtr FY 2014. The ALQ-214 Software Improvement Contract will continue into FY2014 and will include flight testing.												
Accomplishments/Planned Programs Subtotals										60.268	29.874	13.873
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	
• APN/0576 2: Common On-Board Jammer	40.050	57.067	83.083		83.083	102.055	132.981	51.417	52.261	47.850	566.764	
• PANMC/0182: Airborne Expendable CM	20.766	20.930	21.076		21.076	22.066	22.428	22.868	25.502	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
IDECM Block 3 (IB-3) sole source award of Full Rate Production (FRP) in FY 2013. Annual IB-3 production contracts will continue through FY 2046. The ALQ-214 ECP contract effort was awarded sole source to ITT/EXELIS in December 2009. The contract is planned to continue through FY 2013. ALQ-214 Software Improvement acquisition awarded to ITT/EXELIS in FY 2012. ITT is the original developer/manufacturer and current sustainer of the ALQ-214.												
E. Performance Metrics												
IDECM Block 3: Successfully award FRP 4 Contract in 1st Qtr FY 2014.												
IDECM Block 4: Successfully conduct In-Process Review 4 (Production Cut-In 1) in 2nd Qtr FY 2013. Successfully award FRP 10 Contract in 2nd Qtr FY 2013.												
ALQ-214 Software Improvement: Successfully achieve Initial Operational Capability (IOC) in 4th Qtr FY 2015												

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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 5: System Development & Demonstration (SDD)						R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev				PROJECT 2175: Tactical Air Electronic Warfare					
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
Aircraft Integration -IDECM Boeing	Various	Various:Various	7.269	0.000		1.000	Mar 2013	1.000	Mar 2014	-		1.000	1.000	10.269	15.169
Primary Hdw Dev - IDECM ITT	SS/FFP	ITT:Clifton, NJ	91.243	20.689	Dec 2011	2.714	Mar 2013	0.000		-		0.000	0.000	114.646	114.646
Systems Eng - IDECM	SS/CPFF	Various:Various	62.783	0.189	Mar 2012	7.724	Mar 2013	3.251	Mar 2014	-		3.251	3.710	77.657	77.657
Risk Reduction ALQ-214 SW Imp	SS/CPFF	ITT:Clifton, NJ	3.427	0.000		0.000		0.000		-		0.000	0.000	3.427	3.427
Funding no longer in the line	Various	Various:Various	0.000	4.900	Feb 2013	0.000		0.000		-		0.000	0.000	4.900	
Prior Year Prod Dev costs no longer funded in FYDP	Various	Various:Various	115.623	0.000		0.000		0.000		-		0.000	0.000	115.623	
Subtotal			280.345	25.778		11.438		4.251		0.000		4.251	4.710	326.522	
Remarks															
Under Product Development, line 1 FY 2012 costs include \$4.9 Million of funding that was reprogrammed to PE0604512N PU2232 in 1st Qtr of 2013 but still showing in our controls.															
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
Integrated Log Supt - IDECM	WR	FRC-SE:Jacksonville, FL	0.413	0.085	Dec 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Software Dev-ALQ-214 SW Dev	SS/CPFF	ITT:Clifton, NJ	0.000	17.395	Feb 2012	1.882	Jun 2013	0.402	Dec 2013	-		0.402	0.295	19.974	19.974
Software Dev-ALQ-214 SW Dev	SS/CPFF	Various:Various	0.000	0.000		1.230	Apr 2013	0.000		-		0.000	0.000	1.230	1.230
Prior Year Support costs on longer funded in FYDP	Various	Various:Various	8.427	0.000		0.000		0.000		-		0.000	0.000	8.427	
Subtotal			8.840	17.480		3.112		0.402		0.000		0.402			

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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 5: System Development & Demonstration (SDD)						R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev				PROJECT 2175: Tactical Air Electronic Warfare					
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
Dev Test & Eval Supt ALQ-214 SW Imp	WR	Various:Various	0.000	0.000		0.000		1.594	Dec 2013	-		1.594	0.000	1.594	
Oper Test & Eval ALQ-214 SW Imp	WR	Various:Various	0.000	0.000		0.000		1.823	Dec 2013	-		1.823	4.553	6.376	
Flight Test - IDECM	WR	Various:Various	1.278	2.842	Dec 2011	0.805	Dec 2012	0.000		-		0.000	0.000	4.925	
Flight Test- IDECM	WR	NAWCWD:China Lake, CA	0.000	8.646	Dec 2011	4.488	Dec 2012	0.000		-		0.000	0.000	13.134	
Prior Year T&E costs no longer funded in FYDP	Various	Various:Various	7.186	0.000		0.000		0.000		-		0.000	0.000	7.186	
Subtotal			8.464	11.488		5.293		3.417		0.000		3.417	4.553	33.215	
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
Mgt & Prof Supt Srvc- IDECM (Non-FFRDC)	SS/CPFF	Amelex:California, MD	0.404	0.405	Dec 2011	0.451	Dec 2012	0.395	Dec 2013	-		0.395	0.143	1.798	1.798
Travel	Allot	NAWCAD:Pax River, MD	0.435	0.148	Oct 2011	0.105	Oct 2012	0.095	Oct 2013	-		0.095	0.292	1.075	
Eng/Log Supt - IDECM NAWCAD	WR	NAWCAD:Pax River, MD	2.136	1.528	Dec 2011	2.101	Dec 2012	1.450	Dec 2013	-		1.450	5.657	12.872	
Eng/Log Supt - IDECM	WR	Various:Various	5.726	2.692	Dec 2011	5.708	Dec 2012	2.421	Dec 2013	-		2.421	4.867	21.414	
Eng & Tech Srvcs (Non-FFRDC) Pax	SS/CPFF	NAWCAD:Pax River, MD	0.000	0.000		0.709	Dec 2012	0.585	Dec 2013	-		0.585	0.000	1.294	1.294
Eng & Tech Srvcs (Non-FFRDC) NRL	SS/CPFF	NRL:NRL	0.479	0.250	Dec 2011	0.257	Dec 2012	0.265	Dec 2013	-		0.265	1.130	2.381	2.381
Eng & Tech Srvcs (Non-FFRDC)	SS/CPFF	COTF:Norfolk, VA	0.534	0.499	Dec 2011	0.700	Dec 2012	0.592	Dec 2013	-		0.592	0.610	2.935	2.935
Prior Year Mgmt costs no longer funded in FYDP	Various	Various:Various	65.781	0.000		0.000		0.000		-		0.000	0.000	65.781	
Subtotal			75.495	5.522		10.031		5.803		0.000		5.803	12.699	109.550	

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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 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev					PROJECT 2175: Tactical Air Electronic Warfare				
	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	373.144	60.268		29.874		13.873		0.000		13.873				

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

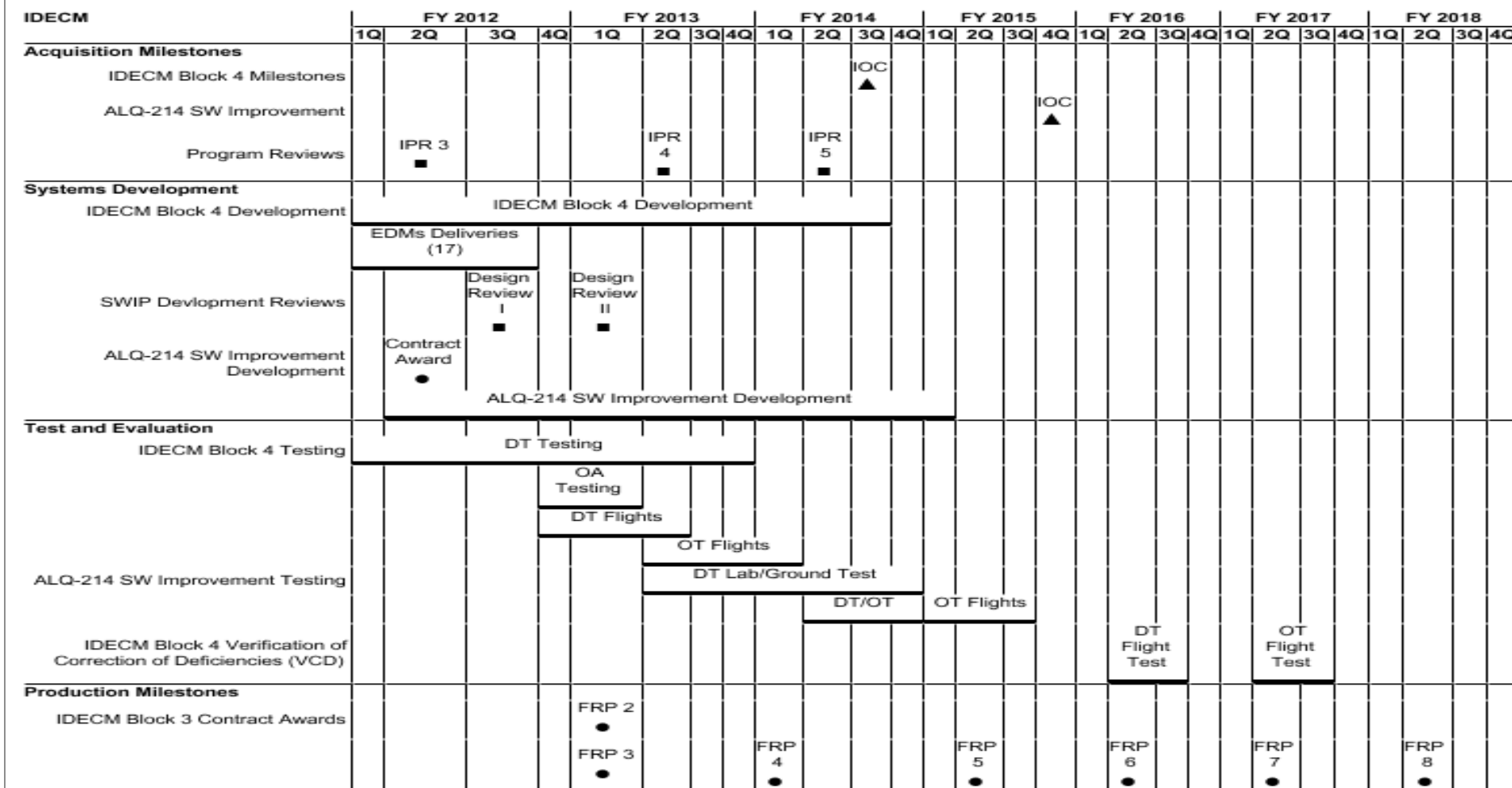
1319: Research, Development, Test & Evaluation, Navy
BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604270N: Electronic Warfare (EW) Dev

PROJECT

2175: Tactical Air Electronic Warfare



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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

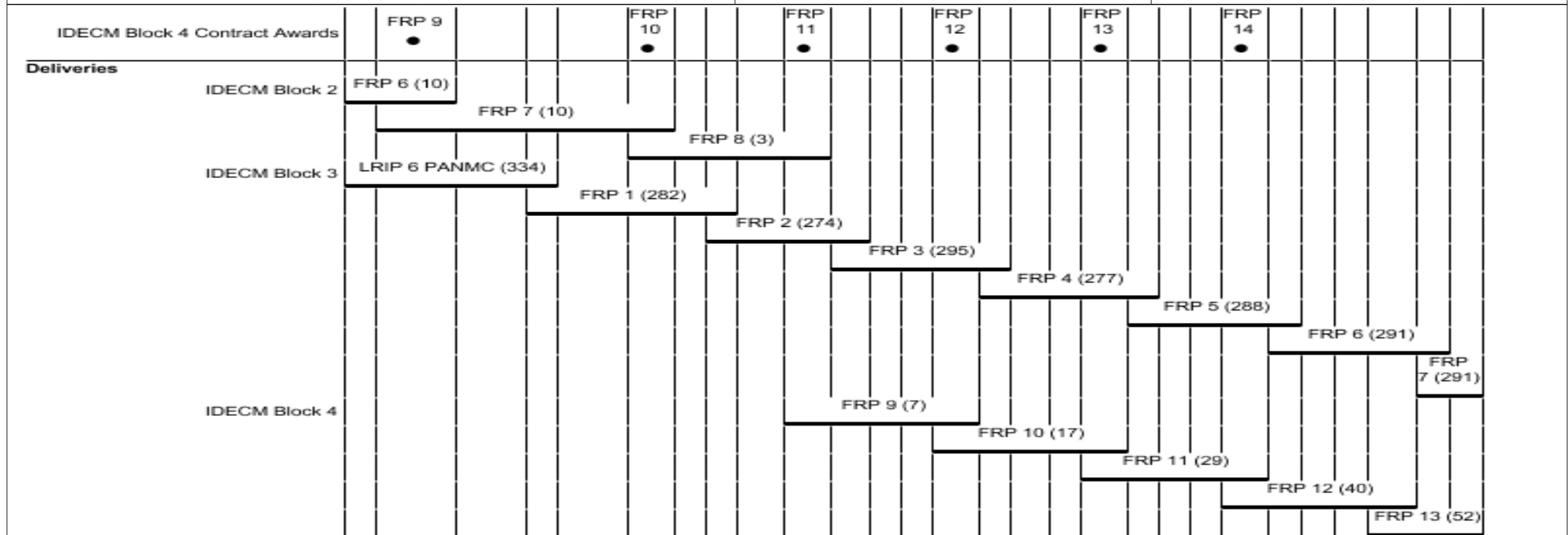
1319: Research, Development, Test & Evaluation, Navy
BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604270N: Electronic Warfare (EW) Dev

PROJECT

2175: Tactical Air Electronic Warfare



2014PB - 0604270N - 2175 IDECM Block 4 is an ECP to Block 2

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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 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270N: <i>Electronic Warfare (EW) Dev</i>	PROJECT 2175: <i>Tactical Air Electronic Warfare</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
IDECM				
Acquisition Milestones: IDECM Block 4 Milestones: IDECM Block 4 IOC	3	2014	3	2014
Acquisition Milestones: ALQ-214 SW Improvement: ALQ-214 SW Improvement (IOC)	4	2015	4	2015
Acquisition Milestones: Program Reviews: IDECM Block 4 In-Process Review (IPR) 3	2	2012	2	2012
Acquisition Milestones: Program Reviews: IDECM Block 4 In-Process Review (IPR) 4	2	2013	2	2013
Acquisition Milestones: Program Reviews: IDECM Block 4 In-Process Review (IPR) 5	2	2014	2	2014
Systems Development: IDECM Block 4 Development: IDECM Block 4 Development	1	2012	3	2014
Systems Development: IDECM Block 4 Development: IDECM Block 4 EDM Deliveries (17)	1	2012	3	2012
Systems Development: SWIP Development Reviews: ALQ-214 SW Improvement Development Design Review 1	3	2012	3	2012
Systems Development: SWIP Development Reviews: ALQ-214 SW Improvement Development Design Review 2	1	2013	1	2013
Systems Development: ALQ-214 SW Improvement Development: ALQ-214 SW Improvement (Contract Award)	2	2012	2	2012
Systems Development: ALQ-214 SW Improvement Development: ALQ-214 SW Improvement Development	2	2012	1	2015
Test and Evaluation: IDECM Block 4 Testing: IDECM Block 4 Development Testing (DT)	1	2012	4	2013
Test and Evaluation: IDECM Block 4 Testing: IDECM Block 4 Operational Assessment (OA)	4	2012	1	2013
Test and Evaluation: IDECM Block 4 Testing: IDECM Block 4 Development Testing Flights	4	2012	2	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev		PROJECT 2175: Tactical Air Electronic Warfare
		Start		End
Events by Sub Project		Quarter	Year	Quarter Year
Test and Evaluation: IDECM Block 4 Testing: IDECM Block 4 Operational Testing Flights		2	2013	1 2014
Test and Evaluation: ALQ-214 SW Improvement Testing: ALQ-214 SW Improvement Development Testing (DT) Lab/Ground		2	2013	4 2014
Test and Evaluation: ALQ-214 SW Improvement Testing: ALQ-214 SW Improvement Development Testing(DT)/Operational Testing (OT) Flights		2	2014	4 2014
Test and Evaluation: ALQ-214 SW Improvement Testing: ALQ-214 SW Improvement Operational Testing (OT) Flights		1	2015	3 2015
Test and Evaluation: IDECM Block 4 Verification of Correction of Deficiencies (VCD): IDECM Block 4 Verification of Correction of Deficiencies DT (VCD)		2	2016	3 2016
Test and Evaluation: IDECM Block 4 Verification of Correction of Deficiencies (VCD): IDECM Block 4 Verification of Correction of Deficiencies OT(VCD)		2	2017	3 2017
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 2		1	2013	1 2013
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 3		1	2013	1 2013
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 4		1	2014	1 2014
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 5		2	2015	2 2015
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 6		2	2016	2 2016
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 7		2	2017	2 2017
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 8		2	2018	2 2018
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 9		2	2012	2 2012

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev		PROJECT 2175: Tactical Air Electronic Warfare
		Start		End
Events by Sub Project		Quarter	Year	Quarter Year
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 10		2	2013	2 2013
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 11		2	2014	2 2014
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 12		2	2015	2 2015
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 13		2	2016	2 2016
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 14		2	2017	2 2017
Deliveries: IDECM Block 2: IDECM Block 2 FRP 6 Deliveries (10)		1	2012	2 2012
Deliveries: IDECM Block 2: IDECM Block 2 FRP 7 Deliveries (10)		2	2012	2 2013
Deliveries: IDECM Block 2: IDECM Block 2 FRP 8 Deliveries (3)		2	2013	2 2014
Deliveries: IDECM Block 3: IDECM Block 3 LRIP 6 Deliveries (334)		1	2012	4 2012
Deliveries: IDECM Block 3: IDECM Block 3 FRP 1 Deliveries (282)		4	2012	4 2013
Deliveries: IDECM Block 3: IDECM Block 3 FRP 2 Deliveries (274)		4	2013	3 2014
Deliveries: IDECM Block 3: IDECM Block 3 FRP 3 Deliveries (295)		3	2014	3 2015
Deliveries: IDECM Block 3: IDECM Block 3 FRP 4 Deliveries (277)		3	2015	3 2016
Deliveries: IDECM Block 3: IDECM Block 3 FRP 5 Deliveries (288)		3	2016	3 2017
Deliveries: IDECM Block 3: IDECM Block 3 FRP 6 Deliveries (291)		3	2017	3 2018
Deliveries: IDECM Block 3: IDECM Block 3 FRP 7 Deliveries (291)		3	2018	4 2018
Deliveries: IDECM Block 4: IDECM Block 4 FRP 9 Deliveries (7)		2	2014	2 2015
Deliveries: IDECM Block 4: IDECM Block 4 FRP 10 Deliveries (17)		2	2015	2 2016
Deliveries: IDECM Block 4: IDECM Block 4 FRP 11 Deliveries (29)		2	2016	2 2017
Deliveries: IDECM Block 4: IDECM Block 4 FRP 12 Deliveries (40)		2	2017	2 2018
Deliveries: IDECM Block 4: IDECM Block 4 FRP 13 Deliveries (52)		2	2018	4 2018

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE				PROJECT			
1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)					PE 0604270N: Electronic Warfare (EW) Dev				3327: MAGTF EW Aviation Development			
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
3327: MAGTF EW Aviation Development	0.000	11.929	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	11.929
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												
This project unit supports the United States Marine Corps (USMC) development of Marine Air Ground Task Force (MAGTF) Electronic Warfare (EW) and the various elements of its distributed System of Systems that support the Commandant of the Marine Corps' Strategy and Vision 2025 and Joint Vision 2025. The SoS will address MAGTF EW sufficiency gaps in the areas of Electronic Attack, Electronic Warfare Support, and Electronic Protection with a multitude of payloads designed for carriage on a variety of organic MAGTF air and ground assets. Payload development plans follow an adaptable, modular and open architecture philosophy to combat the increasing capability gap and enable future growth at a reduced operational and sustainment cost.												
FY12 includes \$5.600M OCO funding for Intrepid Tiger (v)1 (ALQ-231) and \$6.329M baseline funding for MAGTF EW Software Reprogrammable Payload (SRP).												
Prior to FY12, Intrepid Tiger II efforts were budgeted under PU 0556.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
Title: MAGTF EW Software Reprogrammable Payload (SRP) Articles: FY 2012 Accomplishments: Initiated efforts to transition SRP and associated componenets; Collaborative EW/EW Battle Management, EW Services Architecture (formerly Collaborative On-line Reconnaissance Operationally Responsive Attack Link), and Intrepid Tiger II(v)2 from the Joint Capabilities Technology Demonstration into a viable capability.										6.064 0	0.000	0.000
Title: Intrepid Tiger II (v)1 (ALQ-231) Articles: FY 2012 Accomplishments: OCO: This project continued to develop integration between Intrepid Tiger II(v)1 (ALQ-231) and USMC platforms including F/A-18, AV-8B, and the UAS. Initiated incremental capability improvements and maintenance of threat effectiveness to Area of										5.865 0	0.000	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 5: <i>System Development & Demonstration (SDD)</i>					R-1 ITEM NOMENCLATURE PE 0604270N: <i>Electronic Warfare (EW) Dev</i>			PROJECT 3327: <i>MAGTF EW Aviation Development</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)											
Regard defined threat sets employs fleet operator and networked utility assessment inputs. The project fully established initial supportability and maintenance concepts.								FY 2012	FY 2013	FY 2014	
Accomplishments/Planned Programs Subtotals								11.929	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
• APN/0587: <i>MAGTF EW for Aviation</i>	0.489	34.127	14.446		14.446	20.537	8.013	6.085	6.177	Continuing	Continuing
Remarks											
D. Acquisition Strategy This project unit is part of USMC led efforts to ensure Marine Corps requirements are included in the budget process for the FYDP and beyond. These efforts include Software Reprogrammable Payload, Intrepid Tiger II(v)1 (ALQ-231), Intrepid Tiger II(v)2, Collaborative EW (Electronic Warfare)/EW Battle Management, EW Payload, and EW Service Architecture (formerly Collaborative On-line Reconnaissance Operationally Responsive Attack Link). These programs are the Marine Corps' initial steps to create systems to distribute EW capability across the battle space with the intent of replacing EA-6B capabilities for the Marine Air Ground Task Force by 2019.											
E. Performance Metrics Successful completion of Intrepid Tiger II(v)1 (ALQ-231) Engineering Development Model (EDM) Lot 1 Developmental Testing/Operational Testing. Delivery of final EDM test articles prior to Full Operational Capability.											

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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 5: System Development & Demonstration (SDD)							PE 0604270N: Electronic Warfare (EW) Dev					3327: MAGTF EW Aviation Development				
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:Various	0.000	3.243	Nov 2011	0.000		0.000		-		0.000	0.000	3.243		
Systems Engineering	WR	NSWC:Various	0.000	0.200	Dec 2011	0.000		0.000		-		0.000	0.000	0.200		
Systems Engineering	WR	Naval Research Lab:Washington, DC	0.000	4.886	Dec 2011	0.000		0.000		-		0.000	0.000	4.886		
Subtotal			0.000	8.329		0.000		0.000		0.000		0.000	0.000	8.329		
Remarks																
Beginning in FY13, this program will be funded under Program Element 0604376M, Project Unit 3327.																
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	
Eng & Tech Svc (Non-FFRDC)	Various	Various:Various	0.000	1.440	Dec 2011	0.000		0.000		-		0.000	0.000	1.440		
Subtotal			0.000	1.440		0.000		0.000		0.000		0.000	0.000	1.440		
Remarks																
Beginning in FY13, this program will be funded under Program Element 0604376M, Project Unit 3327.																
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	
Testing	WR	NAWCAD:Patuxent River, MD	0.000	1.372	Nov 2011	0.000		0.000		-		0.000	0.000	1.372		
Flight Testing	WR	NAWCWD:China Lake, CA	0.000	0.788	Nov 2011	0.000		0.000		-		0.000	0.000	0.788		
Subtotal			0.000	2.160		0.000		0.000		0.000		0.000	0.000	2.160		
Remarks																
Beginning in FY13, this program will be funded under Program Element 0604376M, Project Unit 3327.																

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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 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270N: Electronic Warfare (EW) Dev					PROJECT 3327: MAGTF EW Aviation Development				
		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	11.929		0.000		0.000		0.000		0.000	0.000	11.929	

Remarks

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PE 0604270N: *Electronic Warfare (EW) Dev*
Navy

R-1 Line #95

	APPROPRIATION/BUDGET ACTIVITY
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1319: Research, Development, Test & Evaluation, Navy
BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604270N: *Electronic Warfare (EW) Dev*

PROJECT

3327: MAGTF EW Aviation Development

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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 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270N: <i>Electronic Warfare (EW) Dev</i>	PROJECT 3327: <i>MAGTF EW Aviation Development</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Intrepid Tiger II (ALQ-231)</i>				
Acquisition Milestones: Milestones: Early Operational Capability (EOC)	3	2012	3	2012
Acquisition Milestones: Milestones: IOC	1	2014	1	2014
Test & Evaluation: Operational Evaluation: Block 1 Test/Quick Reaction Assessment (QRA)	4	2012	2	2013
Deliveries: Lot 2 Deliveries (Qty 8)	2	2012	1	2013
Deliveries: Lot 3 Deliveries (Qty 28)	2	2013	1	2014
Deliveries: Lot 4 Deliveries (Qty 21)	2	2014	1	2015