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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	12.790	5.121	7.874	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	25.785
3308: <i>Technology Development</i>	1.404	1.498	2.438	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.340
3309: <i>Assault Survivability Optimization</i>	11.386	3.623	5.436	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	20.445

Note

PE 0604279N consolidated to PE 0604270N beginning in FY17.

A. Mission Description and Budget Item Justification

This element includes development of Aircraft Survivability Equipment (ASE) and Electronic Warfare (EW)/countermeasures solutions for the United States Navy, United States Marine Corps and Coalition Aircraft to include studies and evaluations of current and future aircraft threats, modeling and simulation for improved countermeasure capabilities, and development and testing to address new and emerging threats.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES because it includes all efforts necessary to evaluate integrated technologies, representative models or prototype systems in a high fidelity and realistic operating environment.

B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	3.921	7.874	6.157	-	6.157
Current President's Budget	5.121	7.874	0.000	-	0.000
Total Adjustments	1.200	0.000	-6.157	-	-6.157
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.200	0.000			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	-6.157	-	-6.157

Change Summary Explanation

Cost:

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	
<p>PU 3309: FY15 reprogramming action #FY 15-28 PA signed 27 August 2015 to address JUONS #SO-0010 to improve the current system-of-systems detect, declare and defeat solution against newly proliferated advanced Man-portable Air Defense Systems (MANPADS). OCO issued sheet #15-401-R dated 15 October 2015.</p> <p>Schedule: Project Unit 3308 / Technology Development:</p> <p>Release 15 added to 1st Qtr of FY 2016. Release 16 moved from 3rd Qtr FY 2016 to 1st Qtr FY 2017 to better align with Program Related Engineering (PRE) Software releases. This is reflected in the Budget under PE 0604270N. Software Technique Development completion moved from 4th Qtr FY 2016 to 3rd Qtr FY 2015 to annualize effort. FY 2016 Software Technique Development 1st Qtr FY 2016 through 3rd Qtr FY 2016 added to schedule. FY 2015 Integrated Evaluation (IE) moved from 2nd Qtr FY 2015 through 4th Qtr 2015 to 1st Qtr 2016 and reduced to a 1 Qtr event. FY 2016 IE moved from 2 Qtr FY 2016 through 4th Qtr FY 2016 to 4th Qtr FY 2016 as a 1 Qtr event.</p> <p>Project Unit 3309 / Assault Survivability Optimization:</p> <p>FY15 F/A-18E/F flight test delayed by one month due to range priorities; testing completed August 2015. FY15 CH-53E flight test delayed until August 2016 due to test range schedule (other available test ranges could not accommodate required flight test profiles). Schedule revised to include efforts to support JUONS #SO-0010.</p> <p>Technical: Not applicable.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3308 / Technology Development
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3308: <i>Technology Development</i>	1.404	1.498	2.438	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.340
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project Unit (PU) 3308 Technology Development: Funds efforts that focus on the quick reaction prototyping of tactical Electronic Warfare (EW)/countermeasures solutions for increased survivability providing friendly forces the self protection necessary for successful mission accomplishment. This program directly addresses the operational requirement of strike platforms for optimization of EW/countermeasure solutions across the Department of the Navy. Improved countermeasure capabilities and techniques through modeling and simulation, validated in subsequent field testing to address new and emerging threats, capitalize upon upgrades to Aircraft Survivability Equipment systems capabilities for strike platforms and evaluate new radio frequency countermeasure and infra red countermeasure technologies.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Technology Development	1.498	2.438	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Continue EW vulnerability studies/analysis, product development and test conducted for strike aircraft.					
FY 2016 Plans: Continue EW vulnerability studies/analysis, product development and test conducted for strike aircraft.					
FY 2017 Base Plans: N/A					
FY 2017 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	1.498	2.438	0.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

EW vulnerability studies/analysis, product development and test conducted for strike aircraft across the FYDP.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / <i>(U)ASE Self Protection Optimization</i>	Project (Number/Name) 3308 / <i>Technology Development</i>

E. Performance Metrics

Electronic Warfare (EW) vulnerability studies/analysis, product development and test conducted for strike aircraft across the FYDP.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016				
Appropriation/Budget Activity				R-1 Program Element (Number/Name)					Project (Number/Name)							
1319 / 4				PE 0604279N / (U)ASE Self Protection Optimization					3308 / Technology Development							
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Product Analysis	C/CPFF	GTRI : Atlanta, GA	0.404	0.000		0.000		0.000		-		0.000	0.000	0.404	0.404	
Subtotal			0.404	0.000		0.000		0.000		-		0.000	0.000	0.404	0.404	
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Software Dev-ALQ-214 SW Dev	WR	NAWCWD : Point Mugu, CA	0.467	0.530	Nov 2014	0.934	Nov 2015	0.000		-		0.000	0.000	1.931	-	
Software Dev-ALQ-214 SW Dev	WR	Various : Various	0.000	0.000		0.644	Oct 2015	0.000		-		0.000	0.000	0.644	-	
Software Dev-ALQ-214 SW Dev	C/CPFF	GTRI : Alanta, GA	0.000	0.000		0.240	Jan 2016	0.000		-		0.000	0.000	0.240	-	
Prior costs no longer in FYDP	Various	Various : Various	0.072	0.000		0.000		0.000		-		0.000	0.000	0.072	0.072	
Subtotal			0.539	0.530		1.818		0.000		-		0.000	0.000	2.887	-	
Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Engineering & Evaluation	WR	NAWCWD : Point Mugu, CA	0.000	0.968	Oct 2014	0.310	Nov 2015	0.000		-		0.000	0.000	1.278	-	
Engineering & Evaluation	WR	NAWCWD : China Lake, CA	0.000	0.000		0.310	Oct 2015	0.000		-		0.000	0.000	0.310	-	
Prior years T&E no longer funded in the FYDP	Various	Various : Various	0.461	0.000		0.000		0.000		-		0.000	0.000	0.461	-	
Subtotal			0.461	0.968		0.620		0.000		-		0.000	0.000	2.049	-	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy								Date: February 2016					
Appropriation/Budget Activity 1319 / 4				R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization				Project (Number/Name) 3308 / Technology Development					
	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.404	1.498		2.438		0.000		-		0.000	0.000	5.340	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3308 / Technology Development
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ASPO	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Milestones																												
Release					R-15 ▼																							
Systems Development																												
Systems Development Reviews	FY-15 Review ▼				FY-16 Review ▼																							
System Development Analysis			FY-15 Analysis				FY-16 Analysis																					
Software Development	FY-15 SW/Technique Development				FY-16 SW/Technique Development																							
Test and Evaluation																												
Integrated Evaluation					FY-15 Int-Eval				FY-16 Int-Eval																			

2017PB - 0604279N - 3308 Project units in PE 0604279N were moved to PE 0604270N in FY 17 and out.

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3308 / Technology Development

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ASPO				
Milestones: Release: Release - 15	1	2016	1	2016
Systems Development: Systems Development Reviews: FY-15 Review	1	2015	1	2015
Systems Development: Systems Development Reviews: FY-16 Review	1	2016	1	2016
Systems Development: System Development Analysis: FY-15 Analysis	2	2015	4	2015
Systems Development: System Development Analysis: FY-16 Analysis	2	2016	4	2016
Systems Development: Software Development: FY-15 SW/Technique Development	1	2015	3	2015
Systems Development: Software Development: FY-16 SW/Technique Development	1	2016	3	2016
Test and Evaluation: Integrated Evaluation: FY-15 Integrated Evaluation	1	2016	1	2016
Test and Evaluation: Integrated Evaluation: FY-16 Integrated Evaluation	4	2016	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization				Project (Number/Name) 3309 / Assault Survivability Optimization			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3309: Assault Survivability Optimization	11.386	3.623	5.436	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	20.445
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project funds the development, testing, and rapid fielding of advanced countermeasures and enhanced employment techniques needed to support current and future operations for USN and USMC aircraft. Incorporates capability advancements in Aircraft Survivability Equipment (ASE) and expendable countermeasures to develop and deploy countermeasure responses resulting in increased platform survivability. Resources will be applied to the following areas: 1) studies and evaluations to optimize current countermeasures and ASE capabilities, 2) development and demonstration of advanced expendable countermeasures and countermeasure techniques, 3) testing and evaluation of advanced countermeasures, 4) development of system software for the testing and deployment of advanced countermeasure techniques, and 5) development of and upgrades to modeling tools and specialized equipment required to conduct evaluation of advanced countermeasures.

FY16 flight test effectiveness testing to be conducted using Non-Combat Expenditure Allowance (NCEA) of current countermeasures. Advanced countermeasures procured in FY16 and delivered within 12 months will support flight test for optimized/advanced countermeasures techniques in FY17. The identified countermeasure quantity is required by Air Expendable Countermeasures Test and Evaluation Master Plan #1480 to complete the flight testing for test Mission Data Files (MDF) and optimized/advanced countermeasures techniques.
(RDT&E Articles are advanced air expendable countermeasures.)

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Analysis and Development of Advanced Countermeasures and Countermeasure Techniques	3.623	5.436	0.000	0.000	0.000
Articles:	580	1,500	-	-	-
FY 2015 Accomplishments: Conducted modeling and simulation, developed enhanced countermeasure techniques, and executed flight effectiveness testing for UH-1Y, MH-60R, and F/A-18E/F platforms. Delivered improved dispense patterns to the software support activity to provide MDF updates for enhanced effectiveness. Conducted modeling and simulation of enhanced countermeasure techniques for CH-53E in preparation for flight effectiveness test. Conducted modeling and simulation and developed enhanced countermeasure techniques for MH-60S, MV-22, and UH-1Y in support of JUONS #SO-0010.					
FY 2016 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Operational MDF release for F/A-18E/F is scheduled for November 2016 in conjunction with CY16 fleet release. UH-1Y updates to be incorporated in September 2016; MH-60R MDF updates to be incorporated in January 2017. Recommendations from the CH-53E modeling and simulation effort targeting incorporation of range information into the countermeasures response in support of smart dispensing will be evaluated during flight effectiveness testing in FY2016. Conduct modeling and simulation to develop enhanced countermeasure techniques for the P-8A platform in support of FY2016 flight effectiveness testing. Continue development of advanced countermeasure techniques on MV-22 and MH-60S platforms in support of FY2016 flight test evaluations. 1,500 test articles procured in FY16 are advanced expendable countermeasures for flight effectiveness testing/ optimization flight tests in FY17. Perform flight effectiveness testing to evaluate enhanced techniques developed for MH-60S, MV-22, and UH-1Y in support of JUONS #SO-0010. FY 2017 Base Plans: N/A FY 2017 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	3.623	5.436	0.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition strategy is to leverage improvements in air expendable countermeasures technology and in Aircraft Survivability Equipment (ASE) integration to enhance platform survivability on USN and USMC platforms through more effective dispense techniques, invest in enhancements to modeling and simulation tools to better evaluate countermeasure effectiveness, upgrade test and evaluation equipment to incorporate current and future threats for effectiveness tests and develop and demonstrate advanced concept countermeasures for future threats. Advanced countermeasures procured in FY16 and delivered within 12 months will support flight test for optimized/advanced countermeasure techniques in FY17. New advanced countermeasures are then transitioned to the Procurement of Ammunition Navy and Marine

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3309 / Assault Survivability Optimization
<p>Corps appropriation for procurement and fielding. New optimized and advanced countermeasure techniques are delivered to government software support activities for fleet release to increase aircraft/aircrew survivability.</p> <p>E. Performance Metrics</p> <p>Maintain Air Expendable Countermeasures (AECM) ORD: #512-88-89 dated 28 May 99 requirement to provide operationally effective mixture of countermeasures that can be employed to degrade and/or neutralize the effectiveness of current and projected threats at or above aircraft key performance parameters for survivability. Countermeasure Techniques developed for improved survivability are further supported by Statement of Functionality for Aircraft Survivability Equipment Smart Dispense, dated 19 January 2012. PU 3309 efforts will continue to change in response to this requirement when similar threat proliferation, advances in countermeasures technology and integrated ASE capability advancements are accomplished.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3309 / Assault Survivability Optimization
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Expendable Countermeasure Technique Modeling and Simulation	WR	NSWC CRANE : Crane, IN	5.908	1.661	Oct 2014	1.746	Oct 2015	0.000		-		0.000	0.000	9.315	-
Expendable Countermeasure Technique Modeling and Simulation	SS/CPFF	Georgia Tech Research Institute : Atlanta, GA	0.000	0.000		0.100	Dec 2015	0.000		-		0.000	0.000	0.100	0.100
Subtotal			5.908	1.661		1.846		0.000		-		0.000	0.000	9.415	-

Remarks
Modeling and simulation to develop advanced countermeasure techniques prior to flight test. JUONS #SO-0010 related modeling and simulation commenced October 2015.

Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test Mission Data File Software Development	WR	FRCSE : Jacksonville, FL	0.585	0.380	Feb 2015	0.360	Nov 2015	0.000		-		0.000	0.000	1.325	-
Prior year Support costs no longer funded in the FYDP	Various	Various : Various	2.610	0.000		0.000		0.000		-		0.000	0.000	2.610	-
Subtotal			3.195	0.380		0.360		0.000		-		0.000	0.000	3.935	-

Remarks
Software development to create Mission Data Files (MDF) and enhanced operational flight program algorithms for flight effectiveness testing. JUONS #SO-0010 mission data file development commenced October 2015. JUONS test mission data file will be complete February 2016 and Operation MDF will be completed June 2016 for MH-60S.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3309 / Assault Survivability Optimization
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Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental T&E Flight Tests	WR	Various : Various	0.000	1.333	Mar 2015	0.800	Nov 2015	0.000		-		0.000	0.000	2.133	-
Advanced Countermeasures for Flight Tests	SS/FP	Esterline Inc. : Camden AR	0.000	0.219	Feb 2016	0.419	Mar 2016	0.000		-		0.000	0.000	0.638	0.419
Engineering and Evaluation for Technology Insertion	WR	NAWCWD : China Lake, CA	0.000	0.030	Oct 2015	0.231	Nov 2015	0.000		-		0.000	0.000	0.261	-
Prior year T&E no longer funded in the FYDP	Various	Various : Various	2.283	0.000		0.000		0.000		-		0.000	0.000	2.283	-
Seeker Test Van Advanced Threat Capability	MIPR	DOTC : Picatinny Arsenal, NJ	0.000	0.000		1.680	Jan 2016	0.000		-		0.000	0.000	1.680	-
Subtotal			2.283	1.582		3.130		0.000		-		0.000	0.000	6.995	-

Remarks
 FY15 developmental T&E effectiveness flight test following modeling and simulation evaluation for UH-1Y and MH-60R completed May 2015 at Eglin AFB. FY15 F/A-18E/F effectiveness flight test scheduled for July 2015 at Naval Air Weapons Station China Lake Edwards AFB was delayed one month due to range priorities and completed August 2015. CH-53E flight test delayed until August 2016 due to test range schedule and availability (other available test ranges could not accommodate flight test profiles).
 FY15 OCO JUONS #SO-0010 flight test scheduled for March 2016
 FY16 developmental T&E effectiveness flight test following modeling and simulation evaluation will occur for MV-22, P-8A, and MH-60S. FY15 Congressional mark delayed advanced countermeasure procurement until FY16. Flight effectiveness testing/optimization of advanced countermeasures will occur in FY17. FY15 flight effectiveness testing was performed utilizing Non-Combat Expenditure Allowance (NCEA) of current countermeasures. Advanced expendable countermeasures procured in FY16 and delivered within 12 months will support flight effectiveness testing /optimization flight tests in FY17. FY15 Seeker Test Van (STV) advanced threat capability item was eliminated due to congressional marks thereby delaying critical threat capability upgrades to Smart Dispense Van (SDV), STV, and Expeditionary Smart Dispense Van (ESDV). Equipment procurement required to evaluate advanced countermeasure techniques and integrate new threat systems into SDV, STV, and ESDV for evaluation capability will commence in FY16.

Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Travel	WR	FRCSE : Jacksonville, FL	0.000	0.000		0.010	Nov 2015	0.000		-		0.000	0.000	0.010	-

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Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Project Management	WR	FRCSE : Jacksonville, FL	0.000	0.000		0.090	Oct 2015	0.000		-		0.000	0.000	0.090	-
Subtotal			0.000	0.000		0.100		0.000		-		0.000	0.000	0.100	-

Remarks
Project management required to coordinate increased development activities.

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	11.386	3.623	5.436	0.000	-	0.000	0.000	20.445	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3309 / Assault Survivability Optimization
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ASPO	FY 2015				FY 2016				FY 2017	FY 2018	FY 2019	FY 2020	FY 2021				
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	
Technique Development/Effectiveness Testing	Modeling and Simulation				Modeling and Simulation												
	Mission Data Files Development				Mission Data Files Development												
	Test MDF ▼	Optimized/Advanced Countermeasure Techniques Delivered to SSA ▼			Mission Data Files Development												
		UH-1Y, MH-60R, F/A-18E/F Flight Test			Test MDF ▼			Optimized/Adv Countermeasure Tech Del to SSA ▼									
		Fleet Employment of Adv Capability ▲			CA ●			CH-53E Flight Test									
					MV-22, P-8A and MH-60S Flight Test			Fleet Employment of Adv Capability ▲									
Software Development (Government Organic Software Support)					Block Cycle Algorithm Enhancement												
					PDR ■			CDR ■									
Test Assesst/Capability Development					Capability Dev												
					STV Capability Dev												
					RF Mod & Sim Capability Dev												
					STV CA ●												
JUONS #SO-0010					Modeling and Simulation												
					Mission Data File Development												

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy	Date: February 2016
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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3309 / Assault Survivability Optimization
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	Test MDF ▼ Flight Test ----- MJU-67 Contract Award ●	Operational MDF ▼
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2017PB - 0604279N - 3309 Project units in PE 0604279N were moved to PE 0604270N in FY 17 and out.

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3309 / Assault Survivability Optimization

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ASPO				
Technique Development/Effectiveness Testing: FY15 Modeling and Simulation	1	2015	2	2015
Technique Development/Effectiveness Testing: FY16 Modeling and Simulation	1	2016	2	2016
Technique Development/Effectiveness Testing: FY15 Mission Data Files (MDF) Development	2	2015	4	2015
Technique Development/Effectiveness Testing: FY15 Test MDF	2	2015	2	2015
Technique Development/Effectiveness Testing: FY15 Optimized/Advanced Countermeasure Techniques Delivered to Software Support Activity (SSA) for fleet release	4	2015	4	2015
Technique Development/Effectiveness Testing: FY16 Mission Data Files Development	2	2016	4	2016
Technique Development/Effectiveness Testing: FY16 Test MDF	2	2016	2	2016
Technique Development/Effectiveness Testing: FY16 Optimized/Advanced Countermeasure Techniques Delivered to Software Support Activity (SSA) for fleet release	4	2016	4	2016
Technique Development/Effectiveness Testing: Advanced Countermeasure Procurement for Flight Tests	2	2016	2	2016
Technique Development/Effectiveness Testing: FY15 Flight Test	3	2015	4	2015
Technique Development/Effectiveness Testing: FY15 CH-53E Flight Test	4	2016	4	2016
Technique Development/Effectiveness Testing: FY16 Flight Test	2	2016	3	2016
Technique Development/Effectiveness Testing: FY15 Fleet Employment of Advanced Capability	4	2015	4	2015
Technique Development/Effectiveness Testing: FY16 Fleet Employment of Advanced Capability	4	2016	4	2016

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy **Date:** February 2016

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604279N / (U)ASE Self Protection Optimization	Project (Number/Name) 3309 / Assault Survivability Optimization
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Software Development (Government Organic Software Support): Block Cycle 10 Algorithm Enhancement	1	2016	4	2016
Software Development (Government Organic Software Support): PDR	2	2016	2	2016
Software Development (Government Organic Software Support): CDR	4	2016	4	2016
Test Assest/Capability Development: SDV/ESDV Capability Development	1	2016	4	2016
Test Assest/Capability Development: STV Capability Development	1	2016	4	2016
Test Assest/Capability Development: RF Mod & Sim Capability Development	1	2016	4	2016
Test Assest/Capability Development: FY16 STV Contract Award	2	2016	2	2016
JUONS #SO-0010: Modeling and Simulation	1	2016	4	2016
JUONS #SO-0010: Mission Data Files Development	1	2016	4	2016
JUONS #SO-0010: Test Mission Data File	2	2016	2	2016
JUONS #SO-0010: Flight Test	2	2016	2	2016
JUONS #SO-0010: Operational Mission Data File	3	2016	3	2016
JUONS #SO-0010: MJU-67 Contract Award	2	2016	2	2016