Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational

PE 0204152N / E-2 Squadrons

Systems Development

COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO [#]	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	185.121	7.871	1.971	-	-	-	-	-	-	-	-	194.963
0463: E2C Improvements	185.121	7.871	1.971	-	-	-	-	-	-	-	-	194.963

[#] The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

E-2 Improvements (0463) provides for incorporation of technologies for the evolution of E-2 Battle Management and Command and Control capabilities in support of naval warfare command and control requirements. It funds digital IP radio efforts as a surrogate to the Joint Tactical Radio System, machine-to-machine digital data communications, Advanced Digital Networking System, cooperative and non-cooperative identification, and open architecture hardware and software computing environments. These efforts have laid the foundation for growth to provide additional functional capabilities satisfying evolving operational requirements, e.g., Airborne Networking, Joint Sensor Netting and Track Management, Tactical Decision Aids, Advanced communications, and permits the evolutionary growth of a Combat Identification and Theater Air and Missile Defense Capability.

Link-16/Cooperative Engagement Capability Interoperability Program funding is to address the most severe data link related interoperability issues. This will significantly improve the quality of the tactical surveillance picture, reduce the possibility of leakers, mitigate Blue on Blue engagements, and mis-identification of tracks. Provides stable sensor fusion foundation to support sensor/weapon coordination requirements.

This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate funding in the current or subsequent fiscal year.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	8.610	1.971	-	-	-
Current President's Budget	7.871	1.971	-	-	-
Total Adjustments	-0.739	-	-	-	-
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.036	-			
Rate/Misc Adjustments	0.001	-	-	-	-

PE 0204152N: E-2 Squadrons

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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0204152N / E-2 Squadrons	
Congressional General Reductions -0.704 Adjustments	-	-
Change Summary Explanation Technical: Not Applicable Schedule: Not Applicable		

PE 0204152N: *E-2 Squadrons*

Exhibit R-2A, RDT&E Project Ju	R-2A, RDT&E Project Justification: PB 2015 Navy											
Appropriation/Budget Activity 1319 / 7					R-1 Progra PE 020415		t (Number/ quadrons	Name)	Project (N 0463 / E20		,	
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
0463: E2C Improvements	185.121	7.871	1.971	-	-	-	-	-	-	-	-	194.963
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

^{*}The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

E-2 Improvements (0463) provides for incorporation of technologies for the evolution of E-2 Battle Management and Command and Control capabilities in support of naval warfare command and control requirements. It funds digital IP radio efforts as a surrogate to the Joint Tactical Radio System, machine-to-machine digital data communications, Advanced Digital Networking System, cooperative and non-cooperative identification, and open architecture hardware and software computing environments. These efforts have laid the foundation for growth to provide additional functional capabilities satisfying evolving operational requirements, e.g., Airborne Networking, Joint Sensor Netting and Track Management, Tactical Decision Aids, Advanced communications, and permits the evolutionary growth of a Combat Identification and Theater Air and Missile Defense Capability.

Link-16/Cooperative Engagement Capability Interoperability Program funding is to address the most severe data link related interoperability issues. This will significantly improve the quality of the tactical surveillance picture, reduce the possibility of leakers, mitigate Blue on Blue engagements, and mid-identification of tracks. Provides stable sensor fusion foundation to support sensor/weapon coordination requirements.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Airborne Battlefield Command and Control	1.203	-	-
Articles:	-	-	-
Description: Funds development and demonstration of E-2 airborne Joint Sensor Netting and Track Management (including Network Centric Collaborative Targeting), Internet Protocol (IP) networking concepts (including Advanced Digital Networking Systems, and IP enabled communications systems), machine-to-machine interface, open architecture computing environment, network applications, tactical decision aids, combat identification technologies, on and off-board data fusion capabilities, and advanced mission computer and communications technologies airborne demonstrations.			
FY 2013 Accomplishments: Funded the development efforts, a Sensor Netting Flex Exercise, and a Limited Objective Experiment.			
FY 2014 Plans: N/A			
FY 2015 Plans: N/A			
Title: Link-16/Cooperative Engagement Capability (CEC) Interoperability	6.668	1.971	-

PE 0204152N: *E-2 Squadrons*

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: March 2014
Appropriation/Budget Activity 1319 / 7	,	, ,	umber/Name) C Improvements

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Link-16/Cooperative Engagement Capability provides design, implementation, test and analysis of Link-16/CEC related interoperability issues.			
FY 2013 Accomplishments: Funded systems engineering development efforts.			
FY 2014 Plans: Funding provides Technical Evaluation and Certification Testing into the E-2C Aircraft.			
FY 2015 Plans: N/A			
Accomplishments/Planned Programs Subtotals	7.871	1.971	-

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

			FY 2015	FY 2015	FY 2015					Cost To	
<u>Line Item</u>	FY 2013	FY 2014	Base	OCO	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	Total Cost
APN/0544: E-2 Series Includes	16.234	20.092	8.432	-	8.432	6.117	10.509	8.654	6.819	31.237	1,494.310
OSID 5 01 012 10 005 11											

002-10, 002-11 and 001-17

Remarks

D. Acquisition Strategy

Link-16/Cooperative Engagement Capability strategy will be exercised under a Joint Interoperability Decision.

E. Performance Metrics

Successfully complete Design Development for the Link-16/Cooperative Engagement Capability Interoperability program.

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	Project (Number/N 0463 / E2C Improve	
		FY 2019
1Q 2Q 3Q 4Q	1Q 2Q 3Q 4Q 1	
		1Q 2Q 3Q 4Q
Airborne Battlefield Command & Control (C2)		
Systems Development		
Hardware Development ABC2 Development		
SNFX LOE		

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Appropriation/Budget Activity 1319 / 7 Link 16 Cooperative Engagement Capability (CEC) Interoperability 1Q Systems Development Software Development Development	Y 2013 2Q	3Q	4Q	_	FY 2	1	PE ()20 <u>4</u> 	1152	2N /	E-2 	ent (Squ	adro	ns	/Na 			04	63 <i>i</i>	IE2	C II	nbe mpr	r/Na ove	ame men) ts		
Capability (CEC) Interoperability 1Q Systems Development Software Development Development	2Q	3Q	4Q	_		2014	ı		FY 2	015		F	Y 20	016		_	v 20		Ī								
Systems Development Software Development Development		3Q	4Q	10	_			FY 2015			FY 2016				FY 20			117			FY 2018			FY 2019			
Software Development Development		1		1	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q 3	3Q 4	Q 1	Q	20 3	iQ 4	iQ.	10	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Software Development		ļ																									
Test & Evaluation																											
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Technical Evaluation	Functional Test																										
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2015DON - 0204152N - 0463																											

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