Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy

R-1 Program Element (Number/Name)

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

Systems Development

PE 0206335M / Common Aviation Command and Control System (CAC2S)

Date: February 2015

,												
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	-	32.495	13.431	-	13.431	10.629	3.323	3.403	3.483	Continuing	Continuing
3373: Common Aviation Command and Control System (CAC2S)	0.000	-	32.495	13.431	-	13.431	10.629	3.323	3.403	3.483	Continuing	Continuing

Program MDAP/MAIS Code:

Appropriation/Budget Activity

Project MDAP/MAIS Code(s): N36

Note

Funding for FY2014 and prior is listed in PE 0206313M Marine Corps Comms Systems, Project 2273 Air Ops Cmd & Control (C2) Sys, Accomplishments/Planned Programs Common Aviation Command and Control Systems (CAC2S)

Funding for FY15 and beyond are listed in PE 0206335M Common Aviation Command and Control System (CAC2S), Project 3373 - Common Aviation Command and Control System (CAC2S)

A. Mission Description and Budget Item Justification

Common Aviation Command and Control System (CAC2S) - A coordinated modernization effort to replace the existing aviation command and control equipment of the Marine Air Command and Control System (MACCS) and to provide the Aviation Combat Element (ACE) with the necessary hardware, software, equipment, and facilities to effectively command, control, and coordinate aviation operations. The CAC2S system will accomplish the MACCS missions with a suite of operationally scalable modules to support the Marine Air Ground Task Force (MAGTF), Joint, and Coalition Forces. The CAC2S integrates the functions of aviation command and control into an interoperable system that will support the core competencies of all Marine Corps warfighting concepts. The CAC2S, in conjunction with MACCS organic sensors and weapons systems, supports the tenets of Expeditionary Maneuver Warfare and fosters joint interoperability. CAC2S Increment I will replace legacy aviation command and control systems in the following Marine aviation agencies: Direct Air Support Center (DASC), Tactical Air Command Center (TACC), and Tactical Air Operations Center (TAOC).

Date: February 2015 Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

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

PE 0206335M / Common Aviation Command and Control System (CAC2S)

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	-	32.495	13.538	-	13.538
Current President's Budget	-	32.495	13.431	-	13.431
Total Adjustments	-	-	-0.107	-	-0.107
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-	-			
Rate/Misc Adjustments	-	-	-0.107	-	-0.107

Change Summary Explanation

The decrease in funding from FY15 to FY16 is due to the ramp down of the Engineering, Manufacturing, and Design (EMD) Phase and transition to procurement after Milestone C in 2nd Otr FY15.

Appropriation/Budget Activity 1319 / 7			_	am Elemen	t (Number/	Name)	Project (N	umbor/Nan	20)		
			PE 0206335M / Common Aviation 3373 / Com						lumber/Name) mmon Aviation Command and vstem (CAC2S)		
COST (\$ in Millions) Prior Years F	Y 2014 FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
3373: Common Aviation - Command and Control System (CAC2S)	- 32.49	5 13.431	-	13.431	10.629	3.323	3.403	3.483	Continuing	Continuing	
Quantity of RDT&E Articles		-	_	-	-	-	-	-			

Project MDAP/MAIS Code: N36

Note

Funding for FY2014 and prior is listed in PE 0206313M Marine Corps Comms Systems, Project 2273 Air Ops Cmd & Control (C2) Sys, Accomplishments/Planned Programs Common Aviation Command and Control Systems (CAC2S)

Funding for FY15 and beyond is listed in PE 0206335M Common Aviation Command and Control System (CAC2S), Project 3373 - Common Aviation Command and Control System (CAC2S)

A. Mission Description and Budget Item Justification

Common Aviation Command and Control System (CAC2S) - A coordinated modernization effort to replace the existing aviation command and control equipment of the Marine Air Command and Control System (MACCS) and to provide the Aviation Combat Element (ACE) with the necessary hardware, software, equipment, and facilities to effectively command, control, and coordinate aviation operations. The CAC2S system will accomplish the MACCS missions with a suite of operationally scalable modules to support the Marine Air Ground Task Force (MAGTF), Joint, and Coalition Forces. The CAC2S integrates the functions of aviation command and control into an interoperable system that will support the core competencies of all Marine Corps warfighting concepts. The CAC2S, in conjunction with MACCS organic sensors and weapons systems, supports the tenets of Expeditionary Maneuver Warfare and fosters joint interoperability. CAC2S Increment I will replace legacy aviation command and control systems in the following Marine aviation agencies: Direct Air Support Center (DASC), Tactical Air Command Center (TACC), and Tactical Air Operations Center (TAOC). Funding decreases (\$19.064) from FY15 to FY16 due to the ramp down of the Engineering, Manufacturing, and Design (EMD) Phase and transition to procurement after Milestone C in 2nd Qtr FY15.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2016	FY 2016	FY 2016
	FY 2014	FY 2015	Base	oco	Total
Title: Product Development	-	6.743	1.175	-	1.175
Articles:	-	-	-	-	-
FY 2014 Accomplishments:					
N/A					
FY 2015 Plans:					
	'	'	'	'	

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: Febr	uary 2015		
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number) PE 0206335M / Common Aviation Command and Control System (Common Aviation)	า	3373 I Con	t (Number/Name) Common Aviation Command and I System (CAC2S)			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quanti	ities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	
Initiate validation and verification of the four (4) Engineering and Develop	ment Models (EDMs).		1 1 2010			1000	
FY 2016 Base Plans: -Complete validation and verification of the four (4) Engineering and Deve-Initiate and complete validation and verification of the four (4) Limited Deve-Initiate and Complete validation and verification of the four (4) Limited Deve-Initiate and Complete validation and verification of the four (4) Limited Deve-Initiate and Complete validation and verification of the four (4) Limited Deve-Initiate and Complete validation and verification of the four (4) Engineering and Deve-Initiate and Complete validation and verification of the four (4) Engineering and Deve-Initiate and Complete validation and verification of the four (4) Engineering and Deve-Initiate and Complete validation and Verification of the four (4) Engineering and Deve-Initiate and Complete validation and Verification of the four (4) Engineering and Deve-Initiate and Complete validation and Verification of the four (4) Engineering and Deve-Initiate and Complete validation and Verification of the four (4) Engineering and Deve-Initiate and Complete validation and Verification of the four (4) Engineering and Complete validation and Verification of the four (4) Engineering and Complete validation and Verification of the four (4) Engineering and Complete validation and Verification of the four (4) Engineering and Complete validation and Complete validation and Verification and Complete validation and							
FY 2016 OCO Plans: N/A							
Title: Support and Management Services	Articles:		5.333	3.303	-	3.30	
FY 2014 Accomplishments: N/A							
FY 2015 Plans: Continue program management, business, engineering, and logistical su	pport.						
FY 2016 Base Plans: Continue program management, business, engineering, and logistical supcompletion of EDM phase.	pport but this support as program nears						
FY 2016 OCO Plans: N/A							
Title: Test and Evaluation	Articles:		20.419	8.953 -	-	8.95 -	
FY 2014 Accomplishments: N/A							
FY 2015 Plans: -Continue support of phase 2 in Information Assurance certification test s -Complete developmental testing of the Engineering and Development M -Initiate Initial Operational Test and Evaluation (IOT&E) preparations.							
FY 2016 Base Plans: -Continue support of phase 2 in Information Assurance certification test s -Complete Initial Operational Test and Evaluation (IOT&E) preparations.	cans.						

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PE 0206335M: Common Aviation Command and Control Syst... Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015			
Appropriation/Budget Activity	R-1 Program Element (Number/I	, , ,			
1319 / 7					
R Accomplishments/Planned Programs (\$ in Millions A)	rticle Quantities in Each)	EV 2016 EV 2016 EV 2016			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
-Intitate and complete IOT&E.					
FY 2016 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	-	32.495	13.431	-	13.431

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

			FY 2016	FY 2016	FY 2016					Cost To	
<u>Line Item</u>	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
 0206313M/2273: Common 	47.197	-	-	-	-	-	-	-	-	-	481.352
Aviation Command And											
Control System (CAC2S)											
 PMC/4640: Common 	2.246	-	-	-	-	-	-	-	-	-	92.311
Aviation Command And											
Control System (CAC2S)											
 PMC/4644: Common 	-	12.272	35.147	_	35.147	61.184	52.769	53.722	54.809	-	269.903
Aviation Command And											
Control System (CAC2S)											
 PMC/7000: Common Aviation 	-	1.698	-	-	-	-	-	-	-	-	1.698
Command And Control (Spares)											

Remarks

RDT&E funding for FY2014 and prior is listed in PE 0206313M Marine Corps Comms Systems, Project 2273 Air Ops Cmd & Control (C2) Sys, Accomplishments/ Planned Programs Common Aviation Command and Control Systems (CAC2S).

RDT&E funding for FY15 and beyond are listed in PE 0206335M Common Aviation Command and Control System (CAC2S), Project 3373 - Common Aviation Command and Control System (CAC2S).

PMC funding for FY2014 and prior is listed in BLI 4640 Air Operations C2 Systems, Common Aviation Command and Control Systems (CAC2S). This funding was primarily executed in support of CAC2S Phase One.

PMC funding for FY15 and beyond are listed in BLI 4644 Common Aviation Command and Control System (CAC2S).

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
1319 / 7	PE 0206335M / Common Aviation	3373 I Common Aviation Command and
	Command and Control System (CAC2S)	Control System (CAC2S)

D. Acquisition Strategy

CAC2S will employ an evolutionary acquisition strategy utilizing an incremental and phased approach for development and fielding of the CAC2S. The Capability Production Document (CPD) identifies two increments to achieve the full requirements of CAC2S. The current acquisition strategy addresses Increment I of the CAC2S development process and focuses on the requirements that will modernize the assault and air support, air defense and control, and Aviation Combat Element (ACE) battle management capabilities of the Marine Air Command and Control System (MACCS). Increment I of the CAC2S will be accomplished through a two phased approach. Phase 1 will address the requirements to establish the baseline CAC2S capabilities for the MACCS and improve AC2 performance and effectiveness. Phase 2 will address the requirements for remaining ACE Battle Management Command & Control (BMC2) requirements.

E. Performance Metrics

Ν	/A	
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

Project (Number/Name)

1319 / 7

R-1 Program Element (Number/Name) PE 0206335M / Common Aviation Command and Control System (CAC2S)

3373 I Common Aviation Command and

Control System (CAC2S)

Product Developme	nt (\$ in Mi	illions)		FY 2	2014	FY:	2015		2016 ise	FY 2	2016 CO	FY 2016 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
Phase 2 Product Development	WR	NSWC CD : Crane, In	0.000	-		1.031	Nov 2014	0.753	Nov 2015	-		0.753	0.896	2.680	-
Phase 2 Product Development	C/FPIF	General Dynamics : Pheonix, AZ	0.000	-		3.800	Nov 2014	-		-		-	16.544	20.344	59.922
Phase 2 Product Development	WR	NSWC DD : Dahlgren, VA	0.000	-		1.951	Nov 2014	0.422	Nov 2015	-		0.422	-	2.373	-
		Subtotal	0.000	-		6.782		1.175		-		1.175	17.440	25.397	-

Support (\$ in Million	ıs)			FY 2	2014	FY 2	2015		2016 ise	FY 2		FY 2016 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	Total Cost	Target Value of Contract
Phase 2 Support	MIPR	AMSSA : Aberdeen, MD	0.000	-		0.501	Nov 2014	0.300	Nov 2015	-		0.300	0.238	1.039	-
Phase 2 Support	WR	SpaWar : Charleston, SC	0.000	-		0.250	Nov 2014	0.200	Nov 2015	-		0.200	0.350	0.800	-
Phase 2 Support	MIPR	JITC : Fort Huachuca, AZ	0.000	-		0.500	Apr 2015	0.300	Nov 2015	-		0.300	0.265	1.065	-
Phase 2 Support	Sub Allot	MCTSSA : Camp Pendleton, CA	0.000	-		0.170	Nov 2014	-		-		-	-	0.170	-
Phase 2 Support	WR	NSWC Corona : Corona, CA	0.000	-		0.376	Nov 2014	-		-		-	-	0.376	-
Phase 2 Support	Sub Allot	LogCom : Albany, GA	0.000	-		0.502	Nov 2014	0.219	Nov 2015	-		0.219	0.302	1.023	-
Phase 2 Support	C/FP	MCSC Safety : TBD	0.000	-		0.250	Nov 2014	0.175	Nov 2015	-		0.175	0.095	0.520	-
Phase 2 Support	Various	Travel: TBD	0.000	-		-		0.143	Oct 2015	-		0.143	Continuing	Continuing	Continuin
		Subtotal	0.000	-		2.549		1.337		-		1.337	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)
PE 0206335M / Common Aviation
Command and Control System (CAC2S)

FY 2016

Test and Evaluation	(\$ in Milli	ons)		FY 2	2014	FY 2	2015		2016 ase		2016 CO	FY 2016 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	Total Cost	Target Value of Contract
Phase 2 Testing and Evaluation	WR	NSWC - Port Huenueme : Port Huenueme, CA	0.000	-		1.001	Nov 2014	0.750	Nov 2015	-		0.750	0.955	2.706	-
Phase 2 Testing and Evaluation	Sub Allot	MCOTEA : Quantico, VA	0.000	-		2.253	Nov 2014	1.200	Jan 2016	-		1.200	3.465	6.918	-
Phase 2 Testing and Evaluation	WR	MACCS - 2 : Cherry Point, NC	0.000	-		0.500	Nov 2014	0.261	Jan 2016	-		0.261	0.125	0.886	-
Phase 2 Testing and Evaluation	Sub Allot	MCTSSA : Camp Pendleton, CA	0.000	-		6.200	Jan 2015	0.876	Nov 2015	-		0.876	0.952	8.028	-
Phase 2 Testing and Evaluation	MIPR	NAWC AB : Patuxent River, MD	0.000	-		6.000	Nov 2014	1.863	Jan 2016	-		1.863	1.258	9.121	-
Phase 2 Testing and Evaluation	WR	NSWC CD : Crane, IN	0.000	-		4.426	Jan 2015	2.652	Nov 2015	-		2.652	7.445	14.523	-
Phase 2 Testing and Evaluation	MIPR	NSWC DD : Dahlgren, VA	0.000	-		-		1.351	Nov 2015	-		1.351	-	1.351	-
		Subtotal	0.000	-		20.380		8.953		-		8.953	14.200	43.533	-

Management Service	es (\$ in M	illions)		FY 2	2014	FY 2	2015	FY 2 Ba		FY 2	2016 CO	FY 2016 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
Phase 2 Management Services	C/FFP	Get It Done (GID) Solutions LLC : Fredericksburg, VA	0.000	-		1.505	Apr 2015	0.980	Mar 2016	-		0.980	-	2.485	19,096.22
Phase 2 Management Services	C/FFP	MITRE : Bedford, MA	0.000	-		1.279	Oct 2014	0.986	Oct 2015	-		0.986	2.958	5.223	-
		Subtotal	0.000	-		2.784		1.966		-		1.966	2.958	7.708	-
						ı						1			

	Prior Years	FY 2	014	FY 2	015	FY 2016 Base		2016 CO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		32.495		13.431	-		13.431	-	-	-

PE 0206335M: Common Aviation Command and Control Syst... Navy

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Exhibit R-3, RDT&E Project Cost Analys	sis: PB 2016 Navy					Date:	February	2015	
Appropriation/Budget Activity 1319 / 7			PE 0206335M /	lement (Number/Name) Common Aviation Control System (CAC2S)	3373	ct (Numbe I Common ol System (Aviation C	ommano	d and
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Targe Value o Contra
Remarks									

PE 0206335M: Common Aviation Command and Control Syst... Navy

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Appropriation/Budget Activity

1319 *l* 7

R-1 Program Element (Number/Name)

PE 0206335M I Common Aviation Command and Control System (CAC2S) Date: February 2015

Project (Number/Name)

3373 I Common Aviation Command and Control System (CAC2S)

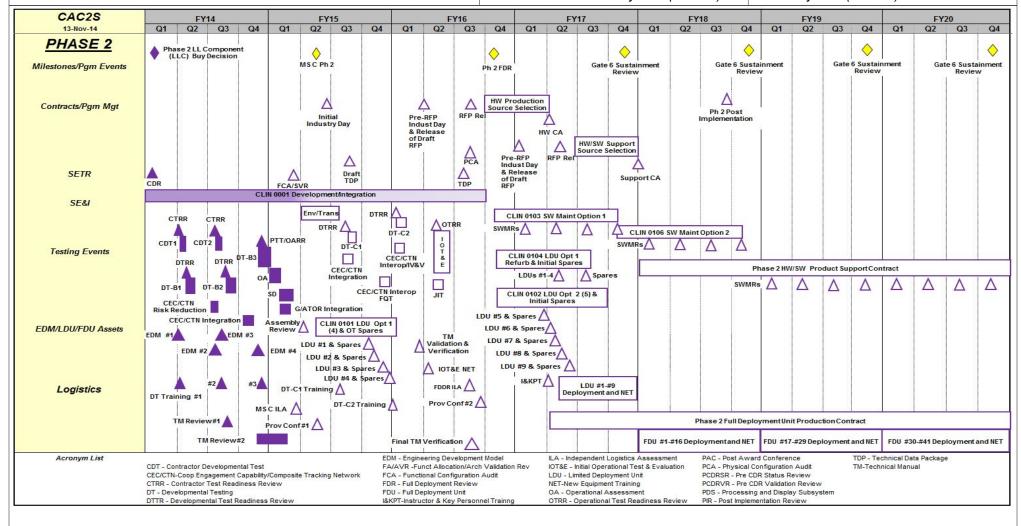


Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0206335M / Common Aviation Command and Control System (CAC2S)	3373 / Con	umber/Name) mmon Aviation Command and estem (CAC2S)

Schedule Details

	St	art	En	d
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 3373				
CAC2S Schedule: CLIN 0001 Development/Integration	1	2014	3	2016
CAC2S Schedule: Critical Design Review	1	2014	1	2014
CAC2S Schedule: Developmental Test - B1	2	2014	2	2014
CAC2S Schedule: Developmental Test - B2	3	2014	3	2014
CAC2S Schedule: Developmental Test - B3	4	2014	4	2014
CAC2S Schedule: Operational Assessment	1	2015	1	2015
CAC2S Schedule: Milestone C	2	2015	2	2015
CAC2S Schedule: Coop Engagement Capability/Composite Tracking Network Certification and Interopability Test	2	2015	2	2015
CAC2S Schedule: Limited Deployment Units (LDU) Build 1-4 (PMC BL 464400)	2	2015	1	2016
CAC2S Schedule: Developmental Test Readiness Review	3	2015	3	2015
CAC2S Schedule: Developmental Test - C1	3	2015	3	2015
CAC2S Schedule: Developmental Test - C2	1	2016	1	2016
CAC2S Schedule: Operational Test Readiness Review	2	2016	2	2016
CAC2S Schedule: Initial Operational Test and Evaluation	2	2016	2	2016
CAC2S Schedule: Full Deployment Review	4	2016	4	2016
CAC2S Schedule: Limited Deployment Units (LDU) Build 5-9 (PMC BL 464400)	4	2016	1	2017