Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy

R-1 Program Element (Number/Name)

Appropriation/Budget Activity
1319: Research, Development, Test & Evaluation, Navy I BA 5: System

PE 0604522N I (U)Air and Missile Defense Radar (AMDR) System

Date: February 2018

Development & Demonstration (SDD)

COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	353.387	141.338	32.090	27.059	-	27.059	26.835	53.840	61.990	52.015	Continuing	Continuing
3186: Air and Missile Defense Radar	353.387	141.338	32.090	27.059	-	27.059	26.835	53.840	61.990	52.015	Continuing	Continuing

Program MDAP/MAIS Code:

Project MDAP/MAIS Code(s): P384

### A. Mission Description and Budget Item Justification

The FY 2019 funding request was reduced by \$.006 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

Air and Missile Defense Radar (AMDR): (NOTE: FY14 and prior year funding is in PE 0604501N) The AMDR suite is being developed to fulfill Integrated Air and Missile Defense requirements for multiple ship classes. This suite consists of an S-Band radar (AMDR-S), an X-band radar and a Radar Suite Controller (RSC). Funding will develop AMDR-S and RSC, and integrate these components with an available X band radar. AMDR will provide multi-mission capabilities, simultaneously supporting both long range, exoatmospheric detection, tracking and discrimination of ballistic missiles, as well as Area and Self Defense against air and surface threats. For the Ballistic Missile Defense (BMD) capability, increased radar sensitivity and bandwidth over current radar systems are needed to detect, track and support engagements of advanced ballistic missile threats at the required ranges, concurrent with Area and Self Defense against Air and Surface threats. For the Area Air Defense and Self Defense capability, increased sensitivity and clutter capability is needed to detect, react to, and engage stressing Very Low Observable/Very Low Flyer (VLO/VLF) threats in the presence of heavy land, sea, and rain clutter. This effort provides for the development of an active phased array radar with the required capabilities to address the evolving threat. The AMDR suite will obtain performance and technology enhancements throughout its service life based upon an approach that includes modularity of hardware and software, a scalable design and Open Architecture (OA) compliance. The FY21-23 controls include funding for RDT&E efforts to adapt a scaled AMDR on a FLT IIA DDG to deliver Active Electronically-Steered Array and digital beamforming technology. The program is on track to complete developmental testing and deliver to the DDG 51 Flight III.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

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

PE 0604522N I (U)Air and Missile Defense Radar (AMDR) System

Date: February 2018

, ,					
B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	144.395	32.090	171.384	-	171.384
Current President's Budget	141.338	32.090	27.059	-	27.059
Total Adjustments	-3.057	0.000	-144.325	-	-144.325
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-3.024	0.000			
<ul> <li>Program Adjustments</li> </ul>	0.000	0.000	-144.309	-	-144.309
Rate/Misc Adjustments	0.000	0.000	-0.016	-	-0.016
<ul> <li>Congressional General Reductions</li> </ul>	-0.033	-	-	-	-
Adjustments					

### **Change Summary Explanation**

Reduction of funding in FY 2019 due to cancellation of procurement of materials and testing of AMDR on the Self Defense Test Ship. Schedule: AMDR Systems integration testing delayed 1 quarter- now completes first quarter 2018.

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Exhibit R-2A, RDT&E Project J	ustification:	PB 2019 N	lavy							Date: Febr	uary 2018	
Appropriation/Budget Activity 1319 / 5		PE 060452	am Elemen 22N / (U)Air IDR) Systen	and Missile	Number/Name) and Missile Defense Radar							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3186: Air and Missile Defense Radar	353.387	141.338	32.090	27.059	-	27.059	26.835	53.840	61.990	52.015	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: P384

#### A. Mission Description and Budget Item Justification

Reduction of funding in FY 2019 due to cancellation of procurement of materials and testing of AMDR on the Self Defense Test Ship.

Air and Missile Defense Radar (AMDR): (NOTE: FY14 and prior year funding is in PE 0604501N) The AMDR suite is being developed to fulfill Integrated Air and Missile Defense requirements for multiple ship classes. This suite consists of an S-Band radar (AMDR-S), an X-band radar and a Radar Suite Controller (RSC). Funding will develop AMDR-S and RSC, and integrate these components with an available X band radar. AMDR will provide multi-mission capabilities, simultaneously supporting both long range, exoatmospheric detection, tracking and discrimination of ballistic missiles, as well as Area and Self Defense against air and surface threats. For the Ballistic Missile Defense (BMD) capability, increased radar sensitivity and bandwidth over current radar systems are needed to detect, track and support engagements of advanced ballistic missile threats at the required ranges, concurrent with Area and Self Defense against Air and Surface threats. For the Area Air Defense and Self Defense capability, increased sensitivity and clutter capability is needed to detect, react to, and engage stressing Very Low Observable/Very Low Flyer (VLO/VLF) threats in the presence of heavy land, sea, and rain clutter. This effort provides for the development of an active phased array radar with the required capabilities to address the evolving threat. The AMDR suite will obtain performance and technology enhancements throughout its service life based upon an approach that includes modularity of hardware and software, a scalable design and Open Architecture (OA) compliance. The FY21-23 controls include funding for RDT&E efforts to adapt a scaled AMDR on a FLT IIA DDG to deliver Active Electronically-Steered Array and digital beamforming technology. The program is on track to complete developmental testing and deliver to the DDG 51 Flight III.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2019	FY 2019	FY 2019
	FY 2017	FY 2018	Base	oco	Total
Title: AMDR HARDWARE (RAYTHEON)	2.052	0.000	0.000	0.000	0.000
Articles	-	-	-	-	-
FY 2018 Plans:					
N/A					
FY 2019 Base Plans:					
N/A					
FY 2019 OCO Plans:					
	I	1	I	I	

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy			Date: Febr	uary 2018	
Appropriation/Budget Activity 1319 / 5  R-1 Program Element (Number PE 0604522N / (U)Air and Miss Radar (AMDR) System		Project (N 3186 / Air	<b>1e)</b> Defense Radar		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
N/A					
Title: AMDR SOFTWARE (RAYTHEON)  Article	11.896 s: -	0.000	0.000	0.000	0.000
<b>FY 2018 Plans:</b> N/A					
FY 2019 Base Plans: N/A					
FY 2019 OCO Plans: N/A					
Title: AMDR DESIGN, SUPPORT, INTEGRATION, TEST AND EVALUATION (RAYTHEON)  Article	57.604 s: -	21.297	18.830	0.000	18.830
FY 2018 Plans: - Conduct SVR/FCA/PRR - Provide engineering services support utilizing the Integration & Production Support (I&PS) contract - Complete Systems Integration testing (DT-3) at PMRF					
Increase in FY18 funding from PB18 primarily due to: - Extension of test activities into 1QFY18					
FY 2019 Base Plans: - Provide engineering services support utilizing the I&PS contract - Provide system engineering and SW support for combat system integration efforts					
FY 2019 OCO Plans: N/A					
FY 2018 to FY 2019 Increase/Decrease Statement:  Decrease in FY19 is due to transition from radar development to integration with the combat system.					
Title: DESIGN, SUPPORT, AND INTEGRATION	11.666	6.155	7.039	0.000	7.03

PE 0604522N: (U)Air and Missile Defense Radar (AMDR) ... Navy

FY 2018 Plans:

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R-1 Line #137

Articles:

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: Febr	uary 2018		
1319/5	<b>R-1 Program Element (Number/l</b> PE 0604522N <i>I (U)Air and Missile</i> Radar (AMDR) System			(Number/Name) ir and Missile Defense Radar			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in	Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	
<ul> <li>Support combat system integration and DDG 51 FLT III integration, including p</li> <li>Critical Design Review (CDR)</li> <li>Support completion of DT-3 test activities at PMRF</li> </ul>	reparing for ACB 20 PDR and	-					
FY 2019 Base Plans: - Support combat system integration and DDG 51 FLT III integration, including p Design Review (CDR)	reparing for ACB 20 Critical						
FY 2019 OCO Plans: N/A							
FY 2018 to FY 2019 Increase/Decrease Statement: Increase in FY19 is due to transition from radar development to integration with	the combat system.						
Title: TEST AND EVALUATION OPERATIONS AND ANALYSIS	Articles:	15.817 -	1.295	0.000	0.000	0.00	
FY 2018 Plans: - Complete conduct of DT-3 testing at PMRF, including launch of test targets							
Increase from PB18 primarily due to: - Labor associated with the extension of test activities into 1Q FY18.							
FY 2019 Base Plans: N/A							
FY 2019 OCO Plans: N/A							
FY 2018 to FY 2019 Increase/Decrease Statement: Decrease in FY19 is due to this effort ending in FY18.							
Title: TEST AND EVALUATION ASSETS AND FACILITIES	Articles:	39.156 -	2.082	0.000	0.000	0.00	
FY 2018 Plans: - Maintain PMRF test site - Provide PMRF range services in support of completion of DT-3 testing - Provide engineering services in support of completion of DT-3 testing							

PE 0604522N: *(U)Air and Missile Defense Radar (AMDR) ...* Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: Febr	uary 2018					
1319 / 5 PE 06	ogram Element (Number/N 04522N / (U)Air and Missile I (AMDR) System									
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total				
- Decrease from PB18 primarily due to reduced utilization of range time and services.										
FY 2019 Base Plans: N/A										
FY 2019 OCO Plans: N/A										
FY 2018 to FY 2019 Increase/Decrease Statement: Decrease in FY19 is due to this effort ending in FY18.										
Title: PROGRAM MANAGEMENT	Articles:	3.147 -	1.261	1.190 -	0.000	1.19				
FY 2018 Plans:  - Analyze and assess contractor deliverables  - Assist in cost, schedule, and performance management, contract management and contracts assessment and risk identification and mitigation  - Provide support to IPTs and WGs required to support E&MD and Integration and Procontracts  - Support the Interim Program Review  - Support completion of DT-3 test activities  - Provide support to technical interchange incentives										
FY 2019 Base Plans: - Provide support to combat system integration effort										
FY 2019 OCO Plans: N/A										
FY 2018 to FY 2019 Increase/Decrease Statement:  Decrease in FY19 is due to minor program and rate adjustments.										
Accomplishments/Plan	nned Programs Subtotals	141.338	32.090	27.059	0.000	27.05				

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PE 0604522N: *(U)Air and Missile Defense Radar (AMDR) ...* Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
1319 / 5	PE 0604522N I (U)Air and Missile Defense	3186 <i>I Air</i> 8	and Missile Defense Radar
	Radar (AMDR) System		

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

			FY 2019	FY 2019	FY 2019					Cost To	
<u>Line Item</u>	FY 2017	FY 2018	Base	OCO	<u>Total</u>	FY 2020	FY 2021	FY 2022	FY 2023	Complete	<b>Total Cost</b>
<ul> <li>SCN/2122: DDG51</li> </ul>	3,630.751	3,640.792	5,699.221	-	5,699.221	3,837.968	5,146.448	5,196.788	5,326.153	Continuing	Continuing

#### Remarks

### D. Acquisition Strategy

Plans for the Air and Missile Defense Radar are to leverage research and development investments, integrate sufficiently matured advanced technologies from technology risk reduction efforts, and incorporate Open Architecture approaches to develop a scalable radar design with major improvements in power, sensitivity, resistance to natural and man-made environments over current radar systems for simultaneous multi-mission BMD, Area and Self Defense Anti-Air Warfare (AAW). System design will be accomplished by employing proven technologies and commercial standards to lower schedule risk and develop a product with the lowest life-cycle cost.

Program scope consists of the following phases: a Concept Studies phase; a Technology Development phase, which included competitive prototyping; an E&MD phase, which includes completion of a full EDM for land-based testing; and transition to production. The detailed scope of this acquisition is defined in the approved Milestone B AMDR Acquisition Strategy (AS).

#### E. Performance Metrics

- Complete Engineering Development Model (EDM) testing
- Achieve Milestone C decision to proceed into production and exercise Low Rate Initial Production (LRIP) options
- Conduct SVR/FCA/PRR
- Support ACB 20 and Ballistic Missile Defense (BMD) 6.X PDR and CDR
- Award Integration and Production Support Contract

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy

Appropriation/Budget Activity

| 1319 / 5

R-1 Program Element (Number/Name)
PE 0604522N I (U)Air and Missile Defense
Radar (AMDR) System

**Project (Number/Name)** 3186 *I Air and Missile Defense Radar* 

Product Developmen	ıt (\$ in Mi	llions)		FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 and Manufacturing Development/Engineering Services	C/CPIF	Raytheon : Sudbury, MA	215.687	71.552	Oct 2016	20.932	Oct 2017	8.389	Oct 2018	-		8.389	Continuing	Continuing	Continuing
Integration and Production Support	SS/FFP	TBD : TBD	0.000	0.000		0.365	Aug 2018	10.441	Oct 2018	-		10.441	Continuing	Continuing	Continuing
		Subtotal	215.687	71.552		21.297		18.830		-		18.830	Continuing	Continuing	N/A

Support (\$ in Million	ıs)			FY 2	2017	FY 2	2018		2019 ase	FY 2	2019 CO	FY 2019 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
Systems Engineering	MIPR	GTRI : Atlanta, GA	0.687	0.000		0.000		0.000		-		0.000	0.000	0.687	-
Systems Engineering	SS/CPFF	JHU/APL : Laurel, MD	12.183	4.516	Dec 2016	1.855	Feb 2018	2.215	Nov 2018	-		2.215	Continuing	Continuing	Continuing
Systems Engineering	MIPR	MIT : Cambridge, MD	1.567	0.683	Mar 2017	0.218	Feb 2018	0.260	Nov 2018	-		0.260	Continuing	Continuing	Continuing
Systems Engineering	WR	NRL : Washington, DC	2.180	0.687	Nov 2016	0.217	Feb 2018	0.258	Oct 2018	-		0.258	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC/CR : Crane, IN	3.577	0.951	Nov 2016	0.622	Feb 2018	0.741	Oct 2018	-		0.741	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC/DD : Dahlgren, VA	8.334	2.410	Dec 2016	1.994	Jan 2018	2.375	Oct 2018	-		2.375	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC/PHD : Port Hueneme, CA	2.538	0.651	Nov 2016	0.030	Feb 2018	0.037	Oct 2018	-		0.037	Continuing	Continuing	Continuin
Systems Engineering	C/CPIF	SPA (Bridge) : Washington, DC	5.329	0.823	Dec 2016	0.000		0.000		-		0.000	0.000	6.152	-
Systems Engineering	MIPR	ARL : Adelphi, MD	0.678	0.203	Nov 2016	0.223	Feb 2018	0.247	Nov 2018	-		0.247	Continuing	Continuing	Continuino
Systems Engineering	WR	NSWC/CD : Carderock, MD	0.280	0.000		0.000		0.000		-		0.000	0.000	0.280	-
Systems Engineering	WR	NSWC/Corona : Corona, CA	0.412	0.084	May 2017	0.000		0.000		-		0.000	0.000	0.496	-

PE 0604522N: (U)Air and Missile Defense Radar (AMDR) ... Navy

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy Date: February 2018

Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name)

1319 / 5 PE 0604522N I (U)Air and Missile Defense 3186 I Air and Missile Defense Radar

Radar (AMDR) System

Support (\$ in Million	upport (\$ in Millions)			FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO					
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
Systems Engineering	Allot	DISA : Scott AFB, Illinois	0.008	0.004	Nov 2016	0.011	Oct 2017	0.011	Nov 2018	-		0.011	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC IH : Indian Head, MD	0.666	0.000		0.000		0.000		-		0.000	0.000	0.666	-
Systems Engineering	SS/FFP	Northrop Grumman : Baltimore, MD	0.065	0.335	Apr 2017	0.233	Feb 2018	0.000		-		0.000	0.000	0.633	-
Systems Engineering	C/FFP	DRS Power & Control Technologies, Inc. : Milwaukee, WI	0.213	0.000		0.000		0.000		-		0.000	0.000	0.213	-
Systems Engineering	C/CPIF	SPA : Washington, DC	0.000	0.319	Aug 2017	0.752	Mar 2018	0.895	Nov 2018	-		0.895	Continuing	Continuing	Continuing
Systems Engineering	C/CPIF	AEGIS TECHREP : Moorestown, NJ	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
		Subtotal	38.717	11.666		6.155		7.039		-		7.039	Continuing	Continuing	N/A

Test and Evaluation	(\$ in Milli	ons)		FY 2	2017	FY 2	2018	FY 2 Ba		FY 2		FY 2019 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
Test and Evaluation	WR	COMOPTEVFOR: Norfolk, VA	0.773	0.458	Feb 2017	0.000		0.000		-		0.000	0.000	1.231	-
Test and Evaluation	MIPR	GTRI : Atlanta, GA	0.000	0.197	Aug 2017	0.000		0.000		-		0.000	0.000	0.197	_
Test and Evaluation	SS/CPFF	JHU/APL : Laurel, MD	10.402	7.259	Dec 2016	0.000		0.000		-		0.000	0.000	17.661	-
Test and Evaluation	MIPR	MIT : Cambridge, MD	0.254	0.056	Mar 2017	0.000		0.000		-		0.000	0.000	0.310	-
Test and Evaluation	WR	NAWC WD : Pt. Mugu, CA	2.363	3.072	Feb 2017	0.000		0.000		-		0.000	0.000	5.435	-
Test and Evaluation	WR	NRL : Washington, DC	0.991	1.105	Nov 2016	0.418	Feb 2018	0.000		-		0.000	0.000	2.514	-

PE 0604522N: (U)Air and Missile Defense Radar (AMDR) ... Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy

Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name)

1319 I 5
PE 0604522N I (U)Air and Missile Defense | 3186 I Air and Missile Defense Radar | Radar (AMDR) System

FY 2019 FY 2019 FY 2019 Test and Evaluation (\$ in Millions) FY 2017 FY 2018 Base oco Total Contract Target Method Performing Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Date Date Cost Date Cost Date Complete Cost Contract Cost Cost Cost NSWC/DD: Test and Evaluation WR 3.043 2.405 Dec 2016 0.112 Jan 2018 0.000 0.000 0.000 5.560 Dahlgren, VA NSWC/PHD: Port Test and Evaluation WR 4.090 1.601 Nov 2016 0.428 Feb 2018 0.000 0.000 0.000 6.119 Hueneme, CA Test and Evaluation WR PMRF: Kekaha, HI 2.180 8.574 Nov 2016 2.039 Feb 2018 0.000 0.000 0.000 12.793 SPA (Bridge): Test and Evaluation C/CPIF 2.238 0.805 Dec 2016 0.000 0.000 0.000 0.000 3.043 Washington, DC NSWC/PHD WS: 24 330 Nov 2016 0.000 Test and Evaluation WR 61 080 0.000 0.000 0.000 85 410 Port Hueneme, CA NSWC Corona: WR 4.158 0.452 Jan 2017 0.043 Feb 2018 0.000 4.653 Test and Evaluation 0.000 0.000 Corona, CA CNA-ONR: Test and Evaluation WR 0.108 0.056 Mar 2017 0.000 0.000 0.000 0.000 0.164 Arlington, VA MDA: Redstone Test and Evaluation C/BA 0.087 1.108 Jan 2017 0.000 0.000 0.000 0.000 1.195 Arsenal, AL Engility: Andover, Test and Evaluation C/CPIF 0.102 0.331 Dec 2016 0.095 Feb 2018 0.000 0.000 0.000 0.528 Test and Evaluation **MIPR** DOI: Boise, ID 0.076 1.607 Feb 2017 0.000 0.000 0.000 0.000 1.683 \_ NSWC Crane: WR 0.621 0.063 Nov 2016 Test and Evaluation 0.000 0.000 0.000 0.000 0.684 Crane. IN AFSEO: Eglin AFB, Test and Evaluation **MIPR** 0.005 0.006 Mar 2017 0.000 0.000 0.000 0.000 0.011 FL FRCE - PMA 226: Test and Evaluation WR 0.005 0.000 0.000 0.000 0.000 0.000 0.005 Cherry Point, NC NUWC KP: Keyport, Test and Evaluation WR 0.124 0.242 Nov 2016 0.137 Feb 2018 0.000 0.000 0.000 0.503 Air National Guard: **MIPR** Test and Evaluation 0.000 0.039 Jul 2017 0.000 0.000 0.000 0.000 0.039 Tulsa. OK COMNAVAIRPAC: WR 0.000 0.000 Test and Evaluation 0.069 Feb 2017 0.000 0.000 0.000 0.069 San Diego, CA NSWC CD: 0.000 Test and Evaluation WR 0.792 Jan 2017 0.000 0.000 0.000 0.000 0.792 Carderock, MD

PE 0604522N: *(U)Air and Missile Defense Radar (AMDR) ...* Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy

R-1 Program Element (Number/Name)

Date: February 2018

Appropriation/Budget Activity 1319 / 5

PE 0604522N I (U)Air and Missile Defense

Project (Number/Name)

Radar (AMDR) System

3186 I Air and Missile Defense Radar

Test and Evaluation	(\$ in Milli	ons)		FY 2	2017	FY 2	2018	FY 2 Ba		FY 2	2019 CO	FY 2019 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
Test and Evaluation	MIPR	AFRL : Kirtland AFB, NM	0.000	0.152	Mar 2017	0.000		0.000		-		0.000	0.000	0.152	-
Test and Evaluation	C/CPIF	SPA : Washington, DC	0.000	0.194	Aug 2017	0.105	Mar 2018	0.000		-		0.000	0.000	0.299	-
		Subtotal	92.700	54.973		3.377		0.000		-		0.000	0.000	151.050	N/A

Management Service	es (\$ in M	illions)		FY 2	2017	FY 2	2018	FY 2 Ba	2019 Ise	FY 2		FY 2019 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
Support Management Services	C/CPIF	SPA (Bridge) : Washington, DC	3.514	1.606	Dec 2016	0.000		0.000		-		0.000	0.000	5.120	-
Travel	Sub Allot	PEOIWS2 : Washington, DC	0.331	0.205	Apr 2017	0.150	Mar 2018	0.075	Jan 2019	-		0.075	Continuing	Continuing	Continuing
Support Management Services	WR	NSWC/DD : Dahlgren, VA	1.589	0.479	Dec 2016	0.070	Jan 2018	0.082	Oct 2018	-		0.082	Continuing	Continuing	Continuing
Support Management Services	C/CPFF	TMB-PSS : Washington, DC	0.037	0.219	Dec 2016	0.053	Oct 2017	0.054	Dec 2018	-		0.054	Continuing	Continuing	Continuing
Support Management Services	C/CPFF	CACI-PSS : Washington, DC	0.603	0.131	Apr 2017	0.088	Dec 2017	0.090	Dec 2018	-		0.090	Continuing	Continuing	Continuing
Support Management Services	C/CPFF	STRATEGIC INSIGHT : Arlington, VA	0.111	0.000		0.035	Jan 2018	0.036	Dec 2018	-		0.036	Continuing	Continuing	Continuing
Support Management Services	C/CPIF	UNC : Chapel Hill, NC	0.098	0.000		0.000		0.000		-		0.000	0.000	0.098	-
Support Management Services	WR	NSWC/CD : Carderock, MD	0.000	0.077	Jul 2017	0.035	Feb 2018	0.000		-		0.000	0.000	0.112	-
Support Management Services	C/CPIF	SPA : Washington, DC	0.000	0.430	Aug 2017	0.830	Mar 2018	0.853	Nov 2018	-		0.853	Continuing	Continuing	Continuing
		Subtotal	6.283	3.147		1.261		1.190		-		1.190	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2	2019 Navy	/								Date:	February	2018	
Appropriation/Budget Activity 1319 / 5				, , ,						roject (Number/Name) 186 I Air and Missile Defense Radar			
	Prior Years	FY 2	2017	FY 2	:018	1	2019 ase	FY 2		FY 2019 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	353.387	141.338		32.090		27.059		-		27.059	Continuing	Continuing	N/A

Exhibit R-4, RDT&E Schedule Profile	: PB 2019 Navy						: February 2018
Appropriation/Budget Activity 1319 / 5				Element (Nun I I (U)Air and M R) System	Project (Number/Name) 3186 I Air and Missile Defense		
	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Program Milestones	Long-Lead Material Awarded Milestone C	Interim Program Review SVR			Aegis Solid	State Backfit	
Systems Engineering		<b>A</b>	ACB20 & BMD 6.X CDR		Δ	1	
Combat System Integration			Δ				
Integration & Production Support	ACB BMD	6.X PDR Integrati Producti Contract	on & on Support				
Testing	DT-3 AMDR Systems Inte Testing	gration					
Production			LRIP				
							2018-01-04 0940
	ACB Advanced Capability BMD Ballistic Missile Defi CDR Critical Design Revi	ense FC		uration Audit	PRR Produ	ninary Design Review action Readiness Review m Verification Review	

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
1319 / 5	3	- 3 (	umber/Name) and Missile Defense Radar

# Schedule Details

	Sta	art	En	ıd
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 3186				
E&MD AMDR System Integration Testing (DT-3)	1	2017	1	2018
LRIP Long Lead Material Award	1	2017	1	2017
Milestone C	3	2017	3	2017
System Verification Review/Functional Configuration Audit/Production Readiness Review	1	2018	1	2018
ACB 20 and BMD 6.X PDR	1	2018	1	2018
Interim Program Review	2	2018	2	2018
Integration and Production Support Contract	4	2018	4	2023
ACB 20 and BMD 6.X CDR	3	2019	3	2019
Aegis Solid State Backfit	1	2021	4	2023