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Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	1,188.051	36.918	56.628	43.158	-	43.158	-	-	-	-	-	-
MD68: <i>AEGIS Ashore</i>	1,141.008	32.922	51.764	39.594	-	39.594	-	-	-	-	-	-
MC68: <i>Cyber Operations</i>	5.625	2.365	2.615	0.944	-	0.944	-	-	-	-	-	-
MD40: <i>Program-Wide Support</i>	41.418	1.631	2.249	2.620	-	2.620	-	-	-	-	-	-

Program MDAP/MAIS Code: 362

Note

Decrease from FY 2021 to FY 2022 reflects the following:

- Continued program maturation of Site Activation activities as Poland construction nears completion and the Integrated Electrical Security System (IESS) becomes fully operational
- Nearing completion of Aegis Combat System component upgrades and improvements at the Aegis Ashore Missile Defense Test Complex (AAMDTC)

A. Mission Description and Budget Item Justification

This program supports development of the Land-Based Standard Missile-3 (LBSM3) capability, Aegis Ashore. On 17 September 2009, the President announced an overarching plan to provide regional missile defense to U.S. deployed forces, allies, and partners in Europe called the European Phased Adaptive Approach (EPAA). The EPAA policy specifically defines a timeline to deploy a mix of afloat and land-based Ballistic Missile Defense (BMD) capabilities. Aegis Ashore represents one of these land-based capabilities. The U.S. can also build on current efforts to pursue Phased Adaptive Approaches (PAAs) in the Asia Pacific and the Middle East regions. The PAA tailors U.S. BMD capabilities to specific theater needs enhancing integrated regional missile defenses to protect defended assets against medium, intermediate, and ultimately intercontinental range ballistic missiles.

Aegis Ashore is a key component of EPAA Phases II (Romania) and III (Poland) and provides Aegis BMD capability against short to intermediate-range ballistic missiles in an ashore configuration. Aegis Ashore provides sophisticated engagement strategies and can adapt to threat updates while also being deployed/redeployed worldwide where needed to provide persistent coverage for the Geographic Combatant Commanders. Aegis Ashore re-hosts the required BMD components of a U.S. Navy Destroyer, including: SPY-1 Radio Direction and Ranging (Radar); Vertical Launch System (VLS), Computing Infrastructure; Command Control; Communications; Computers and Intelligence (C4I) Systems; and Operator Consoles.

This program element will continue to modernize, develop, and test Aegis Ashore capability improvements at the AAMDTC in Hawaii for implementation at operational sites.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Missile Defense Agency	Date: May 2021
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>
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B. Program Change Summary (\$ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	38.352	56.628	43.742	-	43.742
Current President's Budget	36.918	56.628	43.158	-	43.158
Total Adjustments	-1.434	0.000	-0.584	-	-0.584
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.942	0.000			
• Missile Defeat and Defense Enhancement	0.000	0.000	0.000	-	0.000
• Other Adjustment	-0.492	0.000	-0.584	-	-0.584

Change Summary Explanation

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore			
COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
MD68: AEGIS Ashore	1,141.008	32.922	51.764	39.594	-	39.594	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Note

Decrease from FY 2021 to FY 2022 reflects the following:

- Continued program maturation for Site Activation activities as Poland construction nears completion and the Integrated Electrical Security System (IESS) becomes fully operational
- Nearing completion of Aegis Combat System component upgrades and improvements at the AAMDTC

A. Mission Description and Budget Item Justification

Deployed sites, referred to as Aegis Ashore Missile Defense Systems (AAMDS), will be modified to support future computer programs and missile variants in step with the U.S. Navy's Destroyer Modernization Plan. MDA is responsible for maintaining and modernizing the test center at the Pacific Missile Range Facility (PMRF), while the U.S. Navy is responsible for maintaining and modernizing all deployed Aegis Ashore sites. The initial AAMDS deployed to Romania in 2015 employing Aegis BMD 5.0 CU (Capabilities Upgrade) and SM-3 Block 1B. A second AAMDS will deploy to Poland and is scheduled to become operational in FY 2022. These sites provide an Aegis Ashore exo-atmospheric defense against short to intermediate-range ballistic missile threats in the later stages of flight. If the threat dictates, additional systems can be purchased and deployed globally.

Research and Development efforts include design of modifications to adapt the Aegis Weapon System for land-based use, modernization in pace with the U.S. Navy's Destroyer Modernization Plan, development and testing of Aegis Ashore capability improvements at the AAMDTC in Hawaii, and modifications, as required, to enhance co-existence with Broadband Wireless Access systems in the European theater.

In support of EPAA Phase III, Aegis Ashore integrates the Aegis BMD 5.1 and Standard Missile (SM-3) Block IIA capabilities into the Aegis Ashore sites. MDA will provide all upgrades to BMD capability, BMD specific mission equipment, and integration with existing Missile Defense System (MDS) nodes for all Aegis Ashore sites.

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

	FY 2020	FY 2021	FY 2022
Title: Aegis Weapon System Development	19.015	27.889	22.107
Articles:	-	-	-
Description: Operate, maintain and upgrade the AAMDTC at the PMRF in Hawaii. Develop and test Aegis Ballistic Missile Defense (BMD) capability improvements, and support advanced radar and combat system studies and engineering analysis to achieve compliance with the MDA's High Altitude Electromagnetic Pulse (HEMP) Technical Performance Measure requirement and subsequent Defense Threat Reduction Agency (DTRA)/ United States Strategic Command/ European Command (EUCOM) certification.			

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Missile Defense Agency		Date: May 2021
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD68 / <i>AEGIS Ashore</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022
<p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - Determine the minimum hardware refresh of element components and spares that are projected to be removed from the production to ensure the test capability at AAMDTC remains current with the U.S Navy's Destroyer Modernization efforts - Provide system engineering, technical, and logistics support for the AAMDS facility and tactical elements to ensure appropriate system adaptation, readiness, availability, and effectiveness - Modernize the AAMDTC Weapons System, C4I, VLS, and other equipment to align with the U.S. Navy's Destroyer Modernization Plan and ensure the test site configuration is ready to support MDS testing - Maintain Aegis Ashore Technical Data Package with modernization implementation to include drawings and installation plans for U.S. Navy use in implementation at operational sites <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2021 Plans: - SEE ABOVE</p> <p>FY 2022 Plans: - SEE ABOVE</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Decrease from FY 2021 to FY 2022 reflects nearing completion of Aegis Combat System component upgrades and improvements at the AAMDTC.</p>			
<p>Title: Site Activation</p> <p align="right">Articles:</p> <p>Description: Provide site design, unexploded ordnance clearing; spectrum analysis studies; security; temporary facilities; utilities; administrative communications equipment and services; infrastructure modifications; generator and commercial power; leased vehicles; material handling equipment; generator fuel; supplies, barriers; guard shacks; temporary lighting; transportation of materials and equipment; translators; and emerging requirements as site activation progresses and until sites are transferred to the Navy.</p> <p>Recurring Accomplishments include:</p> <ul style="list-style-type: none"> - Provide temporary site activation facilities, base operations support, utilities, administrative communications, on-site material handling equipment services, and equipment installation - Fuel for facility commissioning activities, backup generators, and on-site vehicle support - Technical support to facilitate processing facility change proposals and construction modifications - Post-award technical services (structural, mechanical, and electrical) to ensure quality standards and construction schedule is met 	13.907 -	23.875 -	17.487 -

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Missile Defense Agency	Date: May 2021
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD68 / <i>AEGIS Ashore</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022
- Provide HEMP validation and verification testing of the Aegis Ashore facilities			
FY 2021 Plans: - SEE ABOVE.			
FY 2022 Plans: - SEE ABOVE.			
FY 2021 to FY 2022 Increase/Decrease Statement: Decrease from FY 2021 to FY 2022 reflects continued program maturation of Site Activation activities as Poland construction nears completion and the Integrated Electrical Security System (IESS) becomes fully operational			
Accomplishments/Planned Programs Subtotals	32.922	51.764	39.594

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0208866C MD09: <i>Aegis BMD O&M</i>	74.642	79.913	68.293	-	68.293	-	-	-	-	-	-
• 0208866C MD09: <i>Aegis BMD Procurement</i>	336.374	353.896	334.621	-	334.621	-	-	-	-	-	-
• 0208866C MD73: <i>Aegis Ashore Phase III Procurement</i>	26.495	34.629	25.866	-	25.866	-	-	-	-	-	-
• 0208866C MD90: <i>Aegis BMD Hardware and Software</i>	124.150	104.241	81.791	-	81.791	-	-	-	-	-	-
• 0603892C: <i>AEGIS BMD</i>	722.582	877.336	732.512	-	732.512	-	-	-	-	-	-
• 0604878C: <i>Aegis BMD Test</i>	167.364	71.498	117.055	-	117.055	-	-	-	-	-	-

Remarks

D. Acquisition Strategy
The Aegis Ashore Engineering Agent (AAEA) is responsible for the design, development, integration and test of the Aegis Weapons System capability into a reconstitutable deckhouse. The AAEA will also support Aegis Ashore deployment to Romania.

The Mission Support program office is utilizing Naval Facilities Engineering Command (NAVFAC) and U. S. Corps of Engineers Europe District (Core of Engineers North Atlantic Union) CENAU to award and administer contracts for base operating support, commercial power, temporary site activation facilities, and integrated electronic security systems for Romania and Poland sites.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency												Date: May 2021			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)				Project (Number/Name)					
0400 / 4						PE 0604880C / Land Based SM-3 (LBSM3)				MD68 / AEGIS Ashore					
Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
Aegis Weapon System Development - AWS Development-NAVFAC	MIPR	NAVFAC : HI	5.219	2.600	Nov 2019	3.408	Nov 2020	2.978	Nov 2021	-		2.978	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-NAVSEA-MD68	MIPR	NAVSEA-LM/BAE, SPAWAR, NSWC CD : San Diego, CA; Baltimore, MD; Minneapolis, MN	11.870	3.150	Nov 2019	5.990	Mar 2021	0.210	Nov 2021	-		0.210	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-NSWC DD-MD68	MIPR	NSWC Dahlgren : Dahlgren, VA	48.735	1.214	Nov 2019	1.591	Oct 2020	1.100	Nov 2021	-		1.100	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-NSWC PHD-MD68	MIPR	NSWC PHD, NSWC, DOI, Aegis Techrep : CA, NJ, ID, MD, IN	43.031	2.125	Nov 2019	2.785	Nov 2020	1.200	Nov 2021	-		1.200	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-PMRF - MD68	MIPR	PMRF : Hawaii	16.804	1.238	Nov 2019	1.609	Nov 2020	1.800	Nov 2021	-		1.800	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-SPAWAR-MD68	MIPR	NIWC PAC : San Diego, CA	49.024	2.000	Nov 2019	2.621	Nov 2020	1.695	Nov 2021	-		1.695	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-SSC PAC Pearl Harbor	MIPR	SSC PAC Pearl Harbor : HI	2.246	2.090	Nov 2019	2.739	Nov 2020	0.000		-		0.000	Continuing	Continuing	Continuing
Aegis Weapon System Development - Aegis Weapon System Development - AWS Development-NSWC Crane	MIPR	NSWC Crane : IN	0.000	0.000		0.000		0.300	Nov 2021	-		0.300	Continuing	Continuing	Continuing
Aegis Weapon System Development - Aegis	SS/CPFF	MDA Kuponon : HI	0.000	0.000		0.000		1.734	Nov 2021	-		1.734	Continuing	Continuing	Continuing

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MD68 / AEGIS Ashore
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Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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			
Weapon System Development - Aegis Weapon System Development - MD68-MDA															
Aegis Weapon System Development - Aegis Weapon System Development - MD68-	SS/CPFF	MDA Lockheed Martin : Moorestown, NJ	33.244	4.598	Nov 2019	7.146	Nov 2020	8.302	Nov 2021	-		8.302	Continuing	Continuing	Continuing
Aegis Weapon System Development - Aegis Weapon System Development -- AWS Development- NSWC-Philadelphia	MIPR	NSWC Philadelphia : PA	0.000	0.000		0.000		0.382	Nov 2021	-		0.382	Continuing	Continuing	Continuing
Aegis Weapon System Development - Aegis Weapon System Development - Restoration & Modernization- MD68	Various	Various : Various	0.000	0.000		0.000		1.296	Nov 2021	-		1.296	Continuing	Continuing	Continuing
Aegis Weapon System Development - Aegis Weapon System Development- AWS Development- Various MD68	Various	Various : CECOM/ MITRE, JHU/APL, MIT/LL, DOI	837.719	0.000		0.000		1.110	Nov 2021	-		1.110	Continuing	Continuing	Continuing
Aegis Weapon System Development - Aegis Weapon System Development- MD68	MIPR	MDA : Arlington	1.076	0.000		0.000		0.000		-		0.000	0.000	1.076	0.000
Site Activation - DTRA support to construction in Romania and Poland	MIPR	DTRA : Ft. Belvoir, VA	4.300	0.426	Nov 2019	0.551	Nov 2020	0.566	Nov 2021	-		0.566	Continuing	Continuing	Continuing
Site Activation - Poland Admin Communication	MIPR	Northrop Grumman : Poland	2.205	0.423	Nov 2019	0.467	Nov 2020	0.640	Nov 2021	-		0.640	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MD68 / AEGIS Ashore
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Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
Site Activation - Poland Base Operating Support	MIPR	NAVFAC : Poland	6.962	7.763	Nov 2019	8.464	Nov 2020	7.025	Nov 2021	-		7.025	Continuing	Continuing	Continuing
Site Activation - Poland Commerical and Temporary Utilities	MIPR	NAVFAC : Poland	0.545	2.223	Nov 2019	2.378	Nov 2020	2.643	Nov 2021	-		2.643	Continuing	Continuing	Continuing
Site Activation - Poland Fuel	MIPR	DLA : Fort Belvoir, Virginia	0.089	0.247	Nov 2019	0.263	Nov 2020	0.243	Oct 2021	-		0.243	Continuing	Continuing	Continuing
Site Activation - Romania/ Poland Security Guards / Escorts	C/FFP	Chenega Infinity : Chantilly, VA	0.829	0.252	Nov 2019	9.081	Nov 2020	1.873	Nov 2021	-		1.873	Continuing	Continuing	Continuing
Site Activation - Site Activation – Transportation of Aegis Weapon System	MIPR	SDDC : Scotts AFB, IL	5.893	0.012	Nov 2019	0.013	Nov 2020	0.513	Nov 2021	-		0.513	Continuing	Continuing	Continuing
Site Activation - Site Activation- IESS Support	MIPR	USAF LCMC Wright Patterson AFB : OH	0.145	0.000		0.000		0.000		-		0.000	0.000	0.145	0.000
Site Activation - Site Activation- Poland Admin Communications	MIPR	DISA : Scott AFB, IL	0.169	0.125	Nov 2019	0.000		0.000		-		0.000	0.000	0.294	0.000
Site Activation - Site Activation- Site Activation Poland Navy Leases/ Material Handling Services	MIPR	NAVFAC : Naples Italy	1.324	0.000		0.000		0.000		-		0.000	0.000	1.324	0.000
Site Activation - Site Activation-Variou	Various	Various : Various	64.185	0.035	Jul 2020	0.000		2.241	Dec 2021	-		2.241	Continuing	Continuing	Continuing
Site Activation - USACE in-house support in Poland	MIPR	CEHNC : Huntsville, AL	1.839	1.899	Nov 2019	1.568	Nov 2020	0.501	Nov 2021	-		0.501	Continuing	Continuing	Continuing
Site Activation - USACE support in Poland	MIPR	CENAU : Poland	3.555	0.502	Nov 2019	1.090	Nov 2020	1.242	Nov 2021	-		1.242	Continuing	Continuing	Continuing
Subtotal			1,141.008	32.922		51.764		39.594		-		39.594	Continuing	Continuing	N/A

Remarks
N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD68 / <i>AEGIS Ashore</i>
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	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,141.008	32.922	51.764	39.594	-	39.594	Continuing	Continuing	N/A

Remarks
 Funding in the All Prior Years column represents a summary of Prior Years Total Costs for inactive contracts and MIPRs on the R-3. Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

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Exhibit R-4, RDT&E Schedule Profile: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD68 / <i>AEGIS Ashore</i>
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	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
Significant Event Complete ▲																												
Significant Event Planned △																												
Milestone Decision Complete ★																												
Milestone Decision Planned ☆																												
Element Test Complete ◆																												
Element Test Planned ◇																												
System Level Test Complete ●																												
System Level Test Planned ○																												
Complete Activity ◆																												
Planned Activity ◇																												
AAMDTC Upgrades	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇																
Integrated Master Test Plan (IMTP)	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇																
Facility Support for NAVEUR Exercise								◇																				
Poland Beneficial Occupancy Date (BOD)											◇	◇																
Poland Construction Complete											◇																	
EPAA Phase III Technical Capability Declaration (TCD)											◇																	

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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD68 / <i>AEGIS Ashore</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AAMDTC Upgrades	1	2020	4	2022
Integrated Master Test Plan (IMTP)	1	2020	4	2022
Facility Support for NAVEUR Exercise	3	2021	3	2021
Poland Beneficial Occupancy Date (BOD)	2	2022	3	2022
Poland Construction Complete	3	2022	3	2022
EPAA Phase III Technical Capability Declaration (TCD)	3	2022	3	2022

Note

Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.

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Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MC68 / Cyber Operations			
COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
MC68: <i>Cyber Operations</i>	5.625	2.365	2.615	0.944	-	0.944	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Note

Decrease from FY 2021 to FY 2022 reflects leveraged learning curve efficiencies and current Program requirements as a result of maturation

A. Mission Description and Budget Item Justification

Sustain Missile Defense Agency (MDA) DoD Information Assurance Certification and Accreditation Program (DIACAP) and Controls Validation Testing (CVT) activities, analysis of validation results, risk assessments and reviews of proposed Program Manager/Information Assurance Manager (PM/IAM) Plans of Action and Milestones (POA&Ms) for MDA Aegis Ballistic Missile Defense (BMD) mission systems. It maintains the Certification and Accreditation (C&A) data repository, capturing the DIACAP documentation (artifacts, validation results, and Information Assurance Risk Assessment results, and Designated Approving Authority (DAA) accreditation decisions) on all MDA Information Systems.

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

	FY 2020	FY 2021	FY 2022
Title: Network / System Certification and Accreditation (C&A)	2.365	2.615	0.944
Articles:	-	-	-
<p>Description: Monitor and track cybersecurity mitigation detailed in Information Technology Security Guidance. Activities include preparation of C&A documentation and accreditation recommendations to the MDA Senior Information Assurance Officer (SIAO)/ Certification Authority (CA) and DAA. Independent Verification and Validation (IV&V) team actions ensure the availability, integrity, authentication, confidentiality and non-repudiation of the MDA mission, test and administrative systems. Activities in the Project are necessary to comply with the Federal Information Security Management Act (FISMA).</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - Provide Cybersecurity engineering and architecture requirements planning for Aegis BMD systems - Coordinate the development and implementation of Aegis BMD Risk Management Framework (RMF) accreditation packages - Conduct regular Controls Validation Testing (CVT) of Aegis BMD systems and provide a Risk Assessment Report (RAR) to mitigate cybersecurity deficiencies - Conduct annual cybersecurity reviews on the Aegis BMD systems to assess compliance in implementing and maintaining RMF controls - Implement HW/SW to conduct continuous daily monitoring - Conduct monthly reviews of systems in eMass - Provide daily management of eMass <p>Specific and/or unique accomplishments to each FY are as follows:</p>			
FY 2021 Plans:			

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MC68 / <i>Cyber Operations</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022
- SEE ABOVE.			
<i>FY 2022 Plans:</i> - SEE ABOVE			
<i>FY 2021 to FY 2022 Increase/Decrease Statement:</i> Decrease from FY 2021 to FY 2022 reflects leveraged learning curve efficiencies and current Program requirements as a result of maturation			
Accomplishments/Planned Programs Subtotals	2.365	2.615	0.944

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

N/A

Remarks

D. Acquisition Strategy

The Program Management Office utilizes the U.S. Navy Centers of Excellence to administer contracts for cyber operations, assessments, and mitigations.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MC68 / Cyber Operations
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Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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			
Network / System Certification and Accreditation (C&A) - Cyber Operations	MIPR	PMRF : HI	0.000	0.252	Nov 2019	0.332	Nov 2020	0.147	Nov 2021	-		0.147	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Lockheed Martin	C/CPFF	Lockheed Martin : Moorestown, NJ	0.048	0.000		0.000		0.000		-		0.000	0.000	0.048	0.000
Network / System Certification and Accreditation (C&A) - NAVSEA	MIPR	NAVSEA : Washington, DC	1.843	0.000		0.000		0.000		-		0.000	0.000	1.843	0.000
Network / System Certification and Accreditation (C&A) - NSWC Corona	MIPR	NSWC Corona : CA	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	0.000
Network / System Certification and Accreditation (C&A) - NSWC Philadelphia	MIPR	Pennsylvania, PA : NSWC Philadelphia	1.407	0.133	Nov 2019	0.173	Nov 2020	0.123	Nov 2021	-		0.123	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - SPAWAR	MIPR	SPAWAR : CA	2.077	1.980	Nov 2019	2.110	Nov 2020	0.674	Nov 2021	-		0.674	Continuing	Continuing	Continuing
Subtotal			5.625	2.365		2.615		0.944		-		0.944	Continuing	Continuing	N/A

Remarks
N/A

	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.625	2.365	2.615	0.944	-	0.944	Continuing	Continuing	N/A

Remarks
Award Dates reflect date of first obligation. Additional obligations may incrementally occur throughout the year.

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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MC68 / <i>Cyber Operations</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Cyber Operations	1	2020	4	2022

Note
Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Missile Defense Agency										Date: May 2021		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD40 / Program-Wide Support			
COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
MD40: <i>Program-Wide Support</i>	41.418	1.631	2.249	2.620	-	2.620	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency PEs each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.

A. Mission Description and Budget Item Justification

PWS contains non-headquarters management costs in support of MDA functions and activities across the entire MDS. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the MDS as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes personnel to support global deployments performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations worldwide. Other MDA wide costs include: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations across multiple geographic locations; commercial and ancillary facility services; management of all facility aspects regardless of lifecycle stage; supplies and maintenance; compliance with statutory environmental requirements; data and unified communications support; materiel and readiness and central property management of equipment; Facilities Sustainment, Restoration and Modernization (FSRM) program (formerly Real Property Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.

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

	FY 2020	FY 2021	FY 2022
Title: Program Wide Support	1.631	2.249	2.620
Articles:	-	-	-
Description: PWS contains non-headquarters management costs in support of MDA functions and activities across the entire MDS. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the MDS as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes personnel to support global deployments performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations worldwide. Other MDA wide costs include: physical and technical security; civilian drug testing; audit readiness; the STEM program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations across multiple geographic locations; commercial and ancillary facility services; management of all facility aspects regardless of lifecycle stage; supplies and maintenance; compliance with statutory environmental requirements; data and unified communications support; materiel and readiness and central property management of equipment; the FSRM program (formerly Real Property Maintenance) to keep the Department's			

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Missile Defense Agency		Date: May 2021
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022
inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.			
<i>FY 2021 Plans:</i> - SEE ABOVE.			
<i>FY 2022 Plans:</i> - SEE ABOVE.			
<i>FY 2021 to FY 2022 Increase/Decrease Statement:</i> Increase from FY 2021 to FY 2022 provides the PWS allocation on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.			
Accomplishments/Planned Programs Subtotals	1.631	2.249	2.620

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

N/A

Remarks

D. Acquisition Strategy

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MD40 / Program-Wide Support
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Support (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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			
Program Wide Support - Agency Operations Management	Various	Various: Multi : AL, CA, CO, VA	2.195	0.024	Jul 2020	0.067	Jul 2021	0.055	Apr 2022	-		0.055	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various : Multi: AL, CA, CO, VA	23.295	1.607	Jul 2020	2.182	Jul 2021	2.565	Nov 2021	-		2.565	Continuing	Continuing	Continuing
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	15.928	0.000		0.000		0.000		-		0.000	0.000	15.928	0.000
Subtotal			41.418	1.631		2.249		2.620		-		2.620	Continuing	Continuing	N/A

Remarks
N/A

	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	41.418	1.631	2.249	2.620	-	2.620	Continuing	Continuing	N/A

Remarks
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Missile Defense Agency **Date:** May 2021

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2020	4	2022

Note

Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.