

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2021 Missile Defense Agency **Date:** February 2020

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604673C / <i>Pacific Discriminating Radar</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	-	14.453	6.711	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	21.164
MD51: <i>Pacific Radar (PAC Radar)</i>	-	14.453	5.156	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	19.609
MD40: <i>Program Wide Support</i>	-	0.000	1.555	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.555

**Program MDAP/MAIS Code:** 362

**Note**

Homeland Defense Radar - Hawaii (HDR-H) funding was appropriated/budgeted as follows:

FY 2017: PE 0603884C BMD Sensors, Project MD41

FY 2018: PE 0604673C Pacific Discriminating Radar, Project MD41

FY 2019: PE 0604672C Homeland Defense Radar Hawaii, Project MD41.

Due to a shift in Department of Defense priorities, the Department is no longer pursuing the development and fielding of a Pacific Discriminating Radar beginning in FY 2021. Decrease from FY 2020 to FY 2021 reflects this change.

The FY 2021 funding request was reduced by \$4.0 million during DWR to defer Pacific Radar Fielding.

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

The Pacific Discriminating Radar Program Element is comprised of the PAC Radar program, a persistent discrimination sensor for the Missile Defense System (MDS).

Due to a shift in Department of Defense priorities, the Department is no longer pursuing the development and fielding of a Pacific Discriminating Radar beginning in FY 2021.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2021 Missile Defense Agency	<b>Date:</b> February 2020
---	----------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604673C / <i>Pacific Discriminating Radar</i>
---	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>
Previous President's Budget	15.926	6.711	59.800	-	59.800
Current President's Budget	14.453	6.711	0.000	-	0.000
Total Adjustments	-1.473	0.000	-59.800	-	-59.800
• 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	-0.380	0.000			
• Missile Defeat and Defense Enhancement	0.000	0.000	0.000	-	0.000
• Other Adjustment	-1.093	0.000	-59.800	-	-59.800

**Change Summary Explanation**

Due to a shift in Department of Defense priorities, the Department is no longer pursuing the development and fielding of a Pacific Discriminating Radar beginning in FY 2021. Decrease from FY 2020 to FY 2021 reflects this change.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2021 Missile Defense Agency **Date:** February 2020

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604673C / Pacific Discriminating Radar	<b>Project (Number/Name)</b> MD51 / Pacific Radar (PAC Radar)
--	--	--

COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
MD51: Pacific Radar (PAC Radar)	-	14.453	5.156	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	19.609
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Due to a shift in Department of Defense priorities, the Department is no longer pursuing the development and fielding of a Pacific Discriminating Radar beginning in FY 2021. Decrease from FY 2020 to FY 2021 reflects this change.

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

The mission of the PAC Radar program office is to define, develop, acquire, field, and sustain the radar as an element of the MDS. It will provide persistent tracking, midcourse discrimination, and hit assessment to support the defense of the Homeland against long-range missile threats and defense against regional threats in the USINDOPACOM area of responsibility.

Due to a shift in Department of Defense priorities, the Department is no longer pursuing the development and fielding of a Pacific Discriminating Radar beginning in FY 2021.

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

	FY 2019	FY 2020	FY 2021
<b>Title:</b> Pacific Radar (PAC Radar)	14.453	5.156	0.000
<b>Articles:</b>	-	-	-
<b>Description:</b> Due to a shift in Department of Defense priorities, the Department is no longer pursuing the development and fielding of a Pacific Discriminating Radar beginning in FY 2021.			
Specific and/or unique accomplishments to each FY are as follows:			
<b>FY 2020 Plans:</b> - Complete program close out			
<b>FY 2021 Plans:</b> - No funding requested			
<b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> Due to a shift in Department of Defense priorities, the Department is no longer pursuing the development and fielding of a Pacific Discriminating Radar beginning in FY 2021. Decrease from FY 2020 to FY 2021 reflects this change.			
<b>Accomplishments/Planned Programs Subtotals</b>	14.453	5.156	0.000

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2021 Missile Defense Agency **Date:** February 2020

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604673C / Pacific Discriminating Radar	<b>Project (Number/Name)</b> MD51 / Pacific Radar (PAC Radar)
--	--	--

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

<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u> <u>Base</u>	<u>FY 2021</u> <u>OCO</u>	<u>FY 2021</u> <u>Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	382.759	352.288	281.957	-	281.957	576.699	656.539	574.703	593.592	Continuing	Continuing
• 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management &amp; Communication</i>	500.965	549.756	593.353	-	593.353	593.330	546.471	581.376	543.971	Continuing	Continuing
• 0604672C: <i>Homeland Defense Radar-Hawaii</i>	70.735	188.480	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	259.215
• 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>	172.705	136.423	137.256	-	137.256	118.787	90.299	60.251	41.726	Continuing	Continuing
• 0604879C: <i>Ballistic Missile Defense Sensor Test</i>	71.905	105.530	76.456	-	76.456	99.138	131.191	122.983	124.398	Continuing	Continuing
• 31299903: <i>MILCON PLANNING and DESIGN</i>	6.184	35.472	0.000	-	0.000	0.000	0.000	0.000	0.040	0.000	41.696

**Remarks**

**D. Acquisition Strategy**

The PAC Radar acquisition strategy was approved in December 2017. The PAC Radar procurement was planned as part of the Multiple-Award Indefinite Delivery Indefinite Quantity (MAIDIQ) contract that would include the full/open competitive award of the Delivery Order for the PAC Radar no later than FY 2023. Due to a shift in Department of Defense priorities, the Department is no longer pursuing the development and fielding of a Pacific Discriminating Radar beginning in FY 2021.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Missile Defense Agency** **Date:** February 2020

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604673C / Pacific Discriminating Radar	<b>Project (Number/Name)</b> MD51 / Pacific Radar (PAC Radar)
--	--	--

<b>Product Development (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
Pacific Radar (PAC Radar) - Civilian/Travel	Allot	MDA : Various	0.000	0.474	Nov 2018	1.225	Oct 2019	0.000		-		0.000	0.000	1.699	0.000
Pacific Radar (PAC Radar) - Communications Integration	SS/CPHF	Lockheed Martin : AL	0.000	5.618	Mar 2019	2.984	Oct 2019	0.000		-		0.000	0.000	8.602	0.000
Pacific Radar (PAC Radar) - Contractor Support Services	Various	Various : Various	0.000	2.921	Nov 2018	0.947	Oct 2019	0.000		-		0.000	0.000	3.868	0.000
Pacific Radar (PAC Radar) - FFRDC/UARC	MIPR	GTRI, JHU, MIT, MITRE : AL, GA, MA, VA	0.000	4.455	Nov 2018	0.000		0.000		-		0.000	0.000	4.455	0.000
Pacific Radar (PAC Radar) - Site Activation & Studies	C/CPFF	Various : Various	0.000	0.985	Feb 2019	0.000		0.000		-		0.000	0.000	0.985	0.000
<b>Subtotal</b>			0.000	14.453		5.156		0.000		-		0.000	0.000	19.609	N/A

**Remarks**

N/A

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	14.453	5.156	0.000	-	0.000	0.000	19.609	N/A

**Remarks**

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



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2021 Missile Defense Agency **Date:** February 2020

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604673C / <i>Pacific Discriminating Radar</i>	<b>Project (Number/Name)</b> MD51 / <i>Pacific Radar (PAC Radar)</i>
--	---	---

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Pacific Radar	1	2019	4	2020

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Missile Defense Agency										<b>Date:</b> February 2020		
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604673C / <i>Pacific Discriminating Radar</i>				<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
MD40: <i>Program Wide Support</i>	-	0.000	1.555	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.555
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

In FY 2020, Program Wide Support (PWS) was proportionately reallocated to the Pacific Discriminating Radar program element. PWS is allocated 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.

**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)**

	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<b>Title:</b> Program Wide Support	0.000	1.555	0.000
<b>Articles:</b>	-	-	-
<b>Description:</b> 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			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Missile Defense Agency	<b>Date:</b> February 2020
--	----------------------------

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604673C / <i>Pacific Discriminating Radar</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2019	FY 2020	FY 2021
<p>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.</p> <p><b><i>FY 2020 Plans:</i></b> - SEE ABOVE.</p> <p><b><i>FY 2021 Plans:</i></b> - SEE ABOVE.</p> <p><b><i>FY 2020 to FY 2021 Increase/Decrease Statement:</i></b> Decrease from FY 2020 to FY 2021 reflects 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.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	1.555	0.000

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2021 Missile Defense Agency **Date:** February 2020

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604673C / <i>Pacific Discriminating Radar</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>
--	---	--

Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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 and Support Services	C/CPFF	Various : Multi: AL, VA	0.000	0.000		1.555	Dec 2019	0.000		-		0.000	0.000	1.555	0.000
<b>Subtotal</b>			0.000	0.000		1.555		0.000		-		0.000	0.000	1.555	N/A

**Remarks**  
N/A

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	0.000	1.555	0.000	-	0.000	0.000	1.555	N/A

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



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2021 Missile Defense Agency **Date:** February 2020

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604673C / <i>Pacific Discriminating Radar</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>
--	---	--

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2020	4	2025