

**Missile Defense Agency
 FY 2024 Military Construction, Defense-Wide
 (\$ in Thousands)**

<u>State/Installation/Project</u>	<u>Auth Request</u>	<u>Approp Request</u>	<u>New/ Current Mission</u>	<u>Page No.</u>
Alabama				
Redstone Arsenal Ground Test Facility Infrastructure	147,975	147,975	C	100
Total	147,975	147,975		

1. COMPONENT DEF (MDA)		FY 2024 MILITARY CONSTRUCTION PROGRAM				2. DATE MAR 2023		
3. INSTALLATION AND LOCATION Redstone Arsenal, Alabama			4. COMMAND Missile Defense Agency			5. AREA CONSTRUCTION COST INDEX 0.88		
6. PERSONNEL N/A: Tenant of U.S. Army		(1) PERMANENT		(2) STUDENTS		(3) SUPPORTED		(4) TOTAL
		OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	
b. AS OF YYYYMMDD								0
b. END FY								0
7. INVENTORY DATA (\$000)								
a. TOTAL ACREAGE (acre)							0.00	
b. INVENTORY TOTAL AS OF YYYYMMDD							0.00	
c. AUTHORIZATION NOT YET IN INVENTORY							0.00	
d. AUTHORIZATION REQUESTED IN THIS PROGRAM							147,975.00	
e. AUTHORIZATION INCLUDED IN FOLLOWING PROGRAM							0.00	
f. PLANNED IN NEXT THREE PROGRAM YEARS							0.00	
g. REMAINING DEFICIENCY							0.00	
h. GRAND TOTAL							147,975.00	
8. PROJECTS REQUESTED IN THIS PROGRAM								
a. CATEGORY			b. COST (\$000)	c. DESIGN STATUS				
(1) CODE	(2) PROJECT TITLE	(3) SCOPE		(1) START	(2) COMPLETE			
31071	Ground Test Facility Infrastructure (GTFI)	182,763 SF	147,975	Apr 2022	Sep 2023			
9. FUTURE PROJECTS								
10. MISSION OR MAJOR FUNCTIONS								
The mission of the Missile Defense Agency (MDA) is to develop and deploy a layered Missile Defense System to defend the United States, its deployed forces, allies, and friends from missile attacks in all phases of flight. The GTFI project is required to provide a more operationally realistic, secure, and efficient test infrastructure environment to support Missile Defense System testing. This project will collocate MDA's Eastern data centers to meet Department of Defense mandates for centralized information technology services and cybersecurity.								
11. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES								
			(\$000)					
A. Air Pollution			0					
B. Water Pollution			0					
C. Occupational Safety and Health			0					

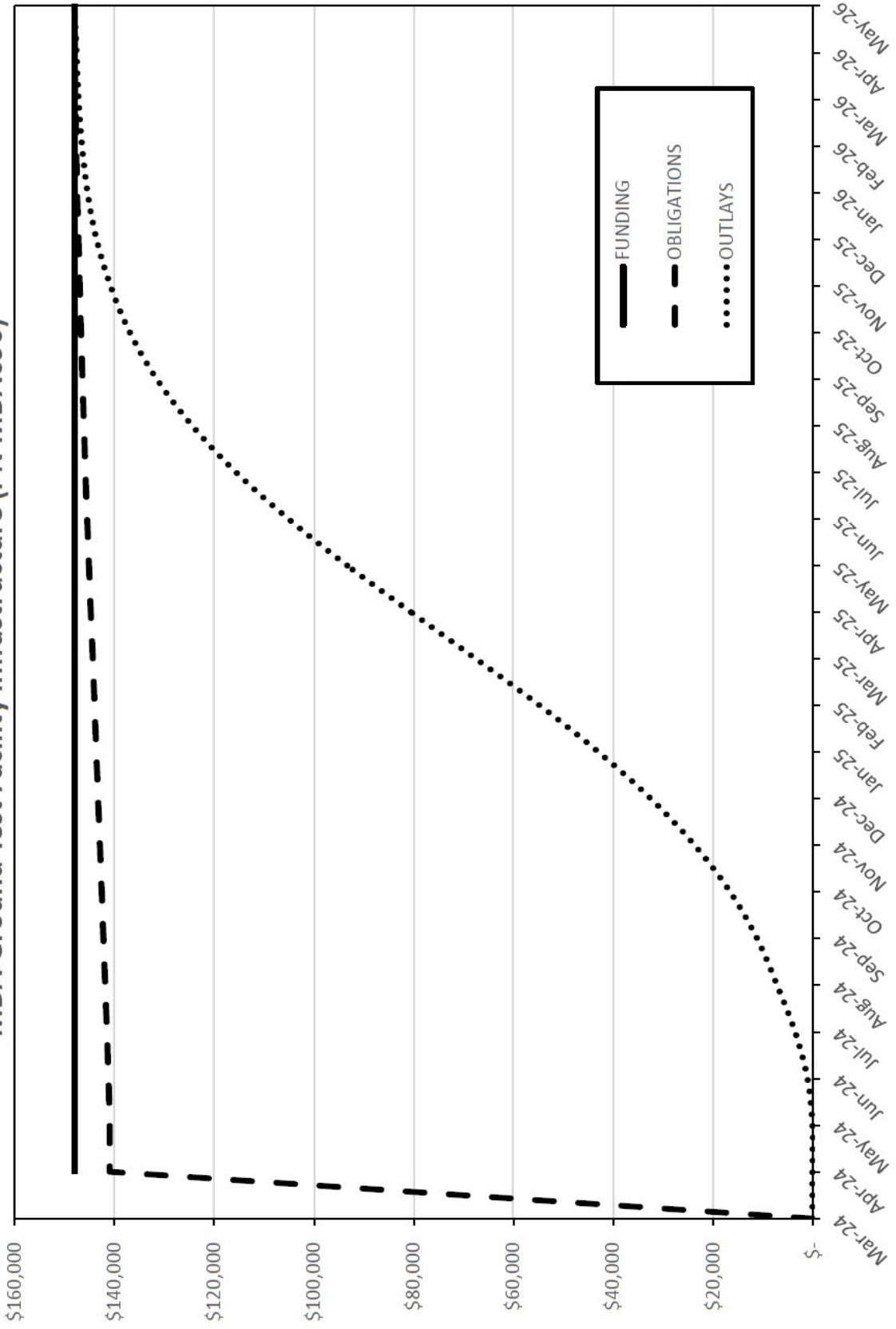
1. COMPONENT MDA	FY 2024 MILITARY CONSTRUCTION PROJECT DATA			2. DATE MAR 2023	
3. INSTALLATION AND LOCATION Redstone Arsenal, Alabama		4. PROJECT TITLE Ground Test Facility Infrastructure			
5. PROGRAM ELEMENT 0603914C	6. CATEGORY CODE 31071	7. PROJECT NUMBER MDA 690	8. PROJECT COST (\$000) 147,975		
9. COST ESTIMATES					
ITEM		U/M (M/E)	QUANTITY	UNIT COST	COST (\$000)
<u>PRIMARY FACILITIES</u>					87,964
Data Center Conversion (13131)		SM(SF)	2551.6 (27,465)	1,807	(49,621)
Laboratory Conversion (31071)		SM(SF)	5295.5 (57,000)	257	(14,670)
Administrative Facilities Renovation (61050)		SM(SF)	7456.0 (80,256)	174	(13,957)
Central Plant Building Expansion (89120)		SM(SF)	1676.1 (18,042)	423	(7,639)
Cyber Security Measures		LS	--	--	(2,077)
<u>SUPPORTING FACILITIES</u>					43,745
Mechanical Systems		LS	--	--	(9,232)
Electrical Service		LS	--	--	(10,752)
Emergency Standby Generators & switchgear		LS	--	--	(17,534)
Utilities - Water, Sewer, Gas		LS	--	--	(2,068)
Site Communications		LS	--	--	(1,624)
Site Improvements/Demo		LS	--	--	(1,092)
Paving, walks, & curbs/gutters		LS	--	--	(1,443)
<u>SUBTOTAL</u>					131,709
CONTINGENCY PERCENT (5.0%)					6,585
TOTAL CONTRACT COST					138,294
SIOH (6.5%)					8,989
DDC (0.5%)					691
TOTAL REQUEST					147,975
TOTAL REQUEST ROUNDED					148,000
INSTALLED EQPT-OTHER APPROPRIATIONS					(198,618)
10. DESCRIPTION OF PROPOSED CONSTRUCTION:					
<p>Convert existing administrative space in Von Braun IV on Redstone Arsenal to data center and Research, Development, Test, and Evaluation (RDT&E) testing laboratories for the Missile Defense Agency (MDA) Missile Defense System mission. The existing facility is a multi-story reinforced concrete and structural steel building on concrete footings, pre-cast wall panels, and build-up roofs. Required functional area improvements include data center conversion/computer operations, RDT&E laboratory space, administrative space, meeting rooms, access control, break rooms, and storage areas. Data center conversion includes new uninterruptible power supply, flooring, air handling units, heating, ventilation, and air conditioning controls & commissioning, chilled water distribution, power distribution units, switchgear, static transfer switches, overhead busway, and fire protection. New exterior stairwells and a one-story building expansion are required to support the electrical gear for the data center. Cyber-security measures will include Facility Related Control Systems for Electronic Security System, Building Automation System, Electric Power Management System, Lighting Control, and Fire Alarm / Mass Notification Systems.</p>					
<p>Supporting facilities includes high efficiency mechanical systems, electrically-driven chillers, fire pumps, electrical supply and distribution, and standby generators for N+1 redundancy for mission critical loads. Also includes water, domestic and storm sewers, electrical substation, gas and electric services; fire protection and alarms systems; connectivity to telecommunications network and distributed service; modification of utility yard access roads; chilled water distribution; and other site improvements. Accessibility will be provided in accordance with Americans with Disabilities Act - Architectural Barriers Act guidelines.</p>					

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10. DESCRIPTION OF PROPOSED CONSTRUCTION: (cont.) Antiterrorism force protection measures include building standoff distances, lighting, bollards, control gates and berms. The project will meet new building design and construction criteria specified in Unified Facilities Criteria (UFC) High Performance and Sustainable Building Requirements, UFC 1-200-02, dated 7 June 2018. As required by UFC 1-200-02, the sustainable design and construction features will be third party certified.			
11. REQUIREMENT: 182,763 SF ADEQUATE: -0- SUBSTANDARD: -0- <u>PROJECT:</u> Convert existing space to new testing laboratories and supporting data center and administrative space to relocate the MDA Advanced Research Center (ARC) from leased space to a secure location on Redstone Arsenal; co-locate MDA ground test functions; and consolidate MDA data center operations. <u>REQUIREMENT:</u> Provide a more operationally secure and efficient test infrastructure environment to support Missile Defense System testing. Project constructs facilities meeting antiterrorism/force protection standards prescribed in UFC 04-010-01 and in line with the Department of Defense (DoD) objective of reducing its presence in potentially vulnerable off post facilities. In addition, the MDA goal is to reduce operating expenses by housing the majority of the MDA test and development/analysis operations in government-owned facilities. This project will collocate MDA's Eastern data centers to meet DoD mandates for centralized information technology services and cybersecurity. <u>CURRENT SITUATION:</u> The MDA hub for ground testing and analysis currently resides off-post in lease space which can pose physical and cybersecurity risks. The facility has had compliance issues with current codes and standards and is not optimally configured for current missions. MDA currently has data centers dispersed across three (3) buildings in Huntsville, AL. The dispersed nature of the facilities creates inefficiencies for conducting test activities including large amounts of data transfer and is not in compliance with Federal Information Technology Reform Act for Data Center consolidation. <u>IMPACT IF NOT PROVIDED:</u> Critical Missile Defense System assets will continue to operate in a high risk environment not conducive to efficient operations. MDA will have to invest substantial funds into the ARC lease facility in order to address end-of-life infrastructure and cyber security concerns and to renovate the facility to meet mission requirements. The renovation will require a shutdown period, potential swing space and temporary equipment, all adversely impacting testing and fielding schedules. Without this project, MDA will not be able to support the current Integrated Master Test Plan due to inability to implement the Continuous Ground Test initiative, which allows MDA to conduct continuous development, integration, and agile testing. <u>ADDITIONAL INFORMATION:</u> Cost estimates are based on Tri-Service Automated Cost Engineering Systems MII estimates. This project has been coordinated with the installation Garrison and includes physical security measures coordinated with MDA and Garrison security forces and DoD regulations. This project is the most cost-effective method to satisfy the requirement and meets the DoD goal of minimizing MDA lease space. Sustainable principles will be integrated into the design, development, and construction of the project in accordance with Executive Order 13834 and other applicable laws and executive orders.			

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11. REQUIREMENT: (cont.) All required National Environmental Policy Act analyses will be completed prior to the start of construction. This project has been evaluated for compliance with Executive Orders 11988 Flood Plain Management and 11990 Protection of Wetlands and the Flood Plain Management Guidelines of U.S. Water Resources Council. The Project is not sited in the 100-year flood plain and will be sited to preserve and enhance the natural and beneficial values of wetlands; and minimize the destruction, loss or degradation of wetlands.																												
12. SUPPLEMENTAL DATA : A. Estimated Execution Data (1) Acquisition Strategy: Design-Bid-Build (2) Design Data (a) Design or request for Proposal (RFP) Started: Apr 2022 (b) Percent Design Complete As Of January 2023: 35% (c) Design or RFP Complete: Sep 2023 (d) Total Design Cost(\$000): 13,500 (e) Energy Study and/or Life Cycle Analysis performed Yes (f) Standard or definitive design used? No (3) Construction Data: (a) Contract Award Apr 2024 (b) Construction Start May 2024 (c) Construction Completion May 2026 B. Equipment associated with this project which will be provided from other appropriations: <table border="1" data-bbox="110 1396 1557 1701"> <thead> <tr> <th data-bbox="110 1430 649 1493">Equipment Nomenclature</th> <th data-bbox="649 1430 1023 1493">Procuring Appropriation</th> <th data-bbox="1023 1396 1380 1493">FY Appropriated or Requested</th> <th data-bbox="1380 1430 1557 1493">Cost \$(000)</th> </tr> </thead> <tbody> <tr> <td data-bbox="110 1503 649 1535">Facility Furnishings</td> <td data-bbox="649 1503 1023 1535">RDT&E</td> <td data-bbox="1023 1503 1380 1535">FY 2026</td> <td data-bbox="1380 1503 1557 1535">8,982</td> </tr> <tr> <td data-bbox="110 1545 649 1577">Security Equipment</td> <td data-bbox="649 1545 1023 1577">RDT&E</td> <td data-bbox="1023 1545 1380 1577">FY 2026</td> <td data-bbox="1380 1545 1557 1577">1,650</td> </tr> <tr> <td data-bbox="110 1587 649 1619">Information Technology</td> <td data-bbox="649 1587 1023 1619">RDT&E</td> <td data-bbox="1023 1587 1380 1619">FY 2026</td> <td data-bbox="1380 1587 1557 1619">12,347</td> </tr> <tr> <td data-bbox="110 1629 649 1661">Test Infrastructure Equipment</td> <td data-bbox="649 1629 1023 1661">RDT&E</td> <td data-bbox="1023 1629 1380 1661">FY 2025/2026/2027</td> <td data-bbox="1380 1629 1557 1661">175,639</td> </tr> <tr> <td data-bbox="110 1671 649 1703">(Procurement/Relocation)</td> <td data-bbox="649 1671 1023 1703"></td> <td data-bbox="1023 1671 1380 1703"></td> <td data-bbox="1380 1671 1557 1703">198,618</td> </tr> </tbody> </table>					Equipment Nomenclature	Procuring Appropriation	FY Appropriated or Requested	Cost \$(000)	Facility Furnishings	RDT&E	FY 2026	8,982	Security Equipment	RDT&E	FY 2026	1,650	Information Technology	RDT&E	FY 2026	12,347	Test Infrastructure Equipment	RDT&E	FY 2025/2026/2027	175,639	(Procurement/Relocation)			198,618
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Spending Plan

MDA Ground Test Facility Infrastructure (PN MDA690)



PROJECT SPENDING PLAN

PROJECT: MDA Ground Test Facility Infrastructure (GTFI) (PN MDA690)

LOCATION: Redstone Arsenal, AL

PROJECT PA: 147,975

EXECUTION YEAR: FY24

rev: 09 February 2023

All costs in thousands (\$000)

Month-Year	FUNDING (Note 1)		OBLIGATIONS (Note 2)		OUTLAYS (Note 3)	
	Enacted	Cumulative	Obligated	Cumulative	Monthly	Cumulative
Feb-24	-	-	-	-	-	-
Mar-24	-	147,975	-	-	-	-
Apr-24	147,975	147,975	140,961	140,961	-	-
May-24	-	147,975	-	140,961	-	-
Jun-24	-	147,975	225	141,186	1,000	1,000
Jul-24	-	147,975	325	141,511	2,500	3,500
Aug-24	-	147,975	325	141,836	3,600	7,100
Sep-24	-	147,975	350	142,186	4,000	11,100
Oct-24	-	147,975	350	142,536	5,400	16,500
Nov-24	-	147,975	350	142,886	7,100	23,600
Dec-24	-	147,975	350	143,236	8,800	32,400
Jan-25	-	147,975	375	143,611	10,500	42,900
Feb-25	-	147,975	375	143,986	11,800	54,700
Mar-25	-	147,975	375	144,361	12,800	67,500
Apr-25	-	147,975	375	144,736	13,000	80,500
May-25	-	147,975	375	145,111	12,800	93,300
Jun-25	-	147,975	350	145,461	11,800	105,100
Jul-25	-	147,975	350	145,811	10,500	115,600
Aug-25	-	147,975	300	146,111	8,800	124,400
Sep-25	-	147,975	300	146,411	7,100	131,500
Oct-25	-	147,975	300	146,711	5,400	136,900
Nov-25	-	147,975	255	146,966	3,900	140,800
Dec-25	-	147,975	252	147,218	2,800	143,600
Jan-26	-	147,975	250	147,468	1,800	145,400
Feb-26	-	147,975	225	147,693	1,100	146,500
Mar-26	-	147,975	150	147,843	700	147,200
Apr-26	-	147,975	75	147,918	400	147,600
May-26	-	147,975	56	147,974	400	148,000

Narrative Description of Assumptions

Note 1: Assumes enactment in April 2024.

Note 2: Assumes funds are available for obligation by April 2024.

Note 3: Assumes NTP issued May 2024.

Note 4: Assumes 24 month construction duration from NTP.

Note 5: Assumes normal distribution (bell curve) of construction funds over 24 months.