

**Missile Defense Agency
 FY 2019 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>
Alaska				
Clear Air Force Station (AFS) Long Range Discrimination Radar System Complex, Phase 2	174,000	174,000	N	101
Fort Greely Missile Field #1 Expansion	8,000	8,000	C	106
Total	182,000	182,000		

1. COMPONENT MDA		FY 2019 MILITARY CONSTRUCTION PROJECT DATA							2. DATE Feb 2018		
3. INSTALLATION AND LOCATION Clear AFS, Alaska					4. COMMAND Missile Defense Agency				5. AREA CONSTR. COST INDEX 2.53		
6. PERSONNEL		PERMANENT			STUDENTS			SUPPORTED			
STRENGTH:		OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	TOTAL
N/A: Tenant of U.S. Air Force											
7. INVENTORY DATA (\$000)											
A. TOTAL ACERAGE							N/A				
B. INVENTORY TOTAL AS OF							N/A				
C. AUTHORIZATION NOT YET IN INVENTORY							155,000				
D. AUTHORIZATION REQUESTED IN THE FY2018							0				
E. AUTHORIZATION REQUESTED IN THE FY2019							174,000				
F. PLANNED IN NEXT THREE PROGRAM YEARS							0				
G. REMAINING DEFICIENCY							0				
H. GRAND TOTAL.							329,000				
8. PROJECTS REQUESTED IN THE FY2019 PROGRAM:											
CATEGORY		PROJECT TITLE				SCOPE		COST (\$000)	DESIGN STATUS		
CODE									START		COMPLETE
8111		Long Range Discrimination Radar System Complex, Phase 2				28.0MW		174,000	Jan 15		Oct 18
9. FUTURE PROJECTS:											
CATEGORY		PROJECT TITLE				SCOPE		COST (\$000)			
CODE											
10. MISSION OR MAJOR FUNCTIONS: The mission of the Missile Defense Agency (MDA) is to develop and field an integrated, layered Ballistic Missile Defense System (BMDS) to defend the United States, our deployed forces, allies, and friends against all ranges of enemy ballistic missiles in all phases of flight. The Long Range Discrimination Radar project is required for deployment of a new midcourse tracking radar that will provide persistent coverage and improve discrimination capabilities against threats to the homeland from the Pacific theater. Phase 2 provides dedicated shielded power generation to improve survivability and reliability, availability, and maintainability (RAM) requirements supporting a midcourse BMDS discrimination capability to defend the United States from ballistic missile attacks and meet the 2020 MDA Enhanced Homeland Defense Capability.											
11. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:											
A. Air Pollution:							N/A				
B. Water pollution:							N/A				
C. Occupational safety and health (OSH):							N/A				

1. COMPONENT MDA		FY 2019 MILITARY CONSTRUCTION PROJECT DATA			2. DATE Feb 2018	
3. INSTALLATION AND LOCATION Clear AFS, Alaska			4. PROJECT TITLE Long Range Discrimination Radar System Complex, Phase 2			
5. PROGRAM ELEMENT 0604873C		6. CATEGORY CODE 8111	7. PROJECT NUMBER MDA 659		8. PROJECT COST (\$000) 174,000	
9. COST ESTIMATES						
ITEM		U/M	QUANTITY	UNIT COST	COST \$(000)	
<u>PRIMARY FACILITIES</u>					147,554	
Mission Power Plant (811147)		KW	28,000	4,428.71	(124,004)	
Special Construction		LS			(12,400)	
Fuel Storage (411134)		GA	200,000	32.27	(6,453)	
Maintenance Facility (219944)		SF	10,000	338.40	(3,384)	
Antiterrorism/Force Protection		LS			(969)	
Security Infrastructure/ESS (872841)		LS			(344)	
<u>SUPPORTING FACILITIES</u>					8,046	
Electric Service		LS			(1,739)	
Water, Sewer		LS			(1,109)	
Site Improvements		LS			(4,092)	
Information/Communication Systems		LS			(1,006)	
Temporary Infrastructure Mob/Demob		LS			(100)	
SUBTOTAL					155,600	
CONTINGENCY (5.00%)					7,780	
TOTAL CONTRACT COST					163,380	
SIOH (6.50%)					10,620	
TOTAL REQUEST					174,000	
TOTAL ROUNDED REQUEST					174,000	
INSTALLED EQUIPMENT-OTHER APPROP					(20,734)	
<p>10. DESCRIPTION OF PROPOSED CONSTRUCTION: This project constructs a Long Range Discrimination Radar (LRDR) Mission power plant at Clear AFS, Alaska supporting the LRDR System Complex. These facilities will be within the LRDR System Security Level A (SSL-A) secure boundary.</p> <p>Special Construction includes High Altitude Electromagnetic Pulse (HEMP)/Electro-Magnetic Interference (EMI) shielding in accordance with MIL-STD-188-125, integration and testing of power and all LRDR Complex shielded assets. Mission critical facilities will include features to meet site specific ground motion and seismic requirements.</p> <p>Fuel storage includes distribution piping, liquid fuel offloading stand and storage tanks.</p> <p>The maintenance facility will provide general work bench space for maintenance of radar system components and other mission support activities. It will also provide shipping and receiving and warehouse space for general facility material.</p> <p>Anti-terrorism / force protection infrastructure will consist of fencing and gates.</p> <p>Security Infrastructure / electronic security system (ESS) will include fire protection and alarm systems.</p> <p>Supporting facilities include electrical medium voltage distribution from the substation to the mission power plant, lightning protection and equipment grounding, water, and sewer.</p> <p>Site improvements include clearing, grubbing, grading, demolition, paving, walks and storm drainage.</p> <p>Information and Communications systems will include communication transmission lines, cybersecurity, and information management systems.</p> <p>Temporary infrastructure will support site improvements and preparation for construction. Improvements include temporary roads, construction free zone site fence, mobilization and demobilization.</p>						

1. COMPONENT MDA	FY 2019 MILITARY CONSTRUCTION PROJECT DATA	2. DATE Feb 2018
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3. INSTALLATION AND LOCATION
Clear AFS, Alaska

4. PROJECT TITLE Long Range Discrimination Radar System Complex, Phase 2	5. PROJECT NUMBER MDA 659
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12. SUPPLEMENTAL DATA:

- A. Estimated Execution Data
- (1) Acquisition Strategy: Design-Bid-Build
 - (2) Design Data
 - (a) Design or Request for Proposal (RFP) Started: Jan 2015
 - (b) Percent Complete As Of January 2018 65%
 - (c) Design or RFP Complete: Oct 2018
 - (d) Total Design Cost: 15,100,000
 - (e) Energy Study and/or Life Cycle Analysis performed No
 - (f) Standard or definitive design used? No
 - (3) Construction Data:
 - (a) Contract Award Mar 2019
 - (b) Construction Start Jun 2019
 - (c) Construction Completion Dec 2021

B. Equipment associated with this project which will be provided from other appropriations:

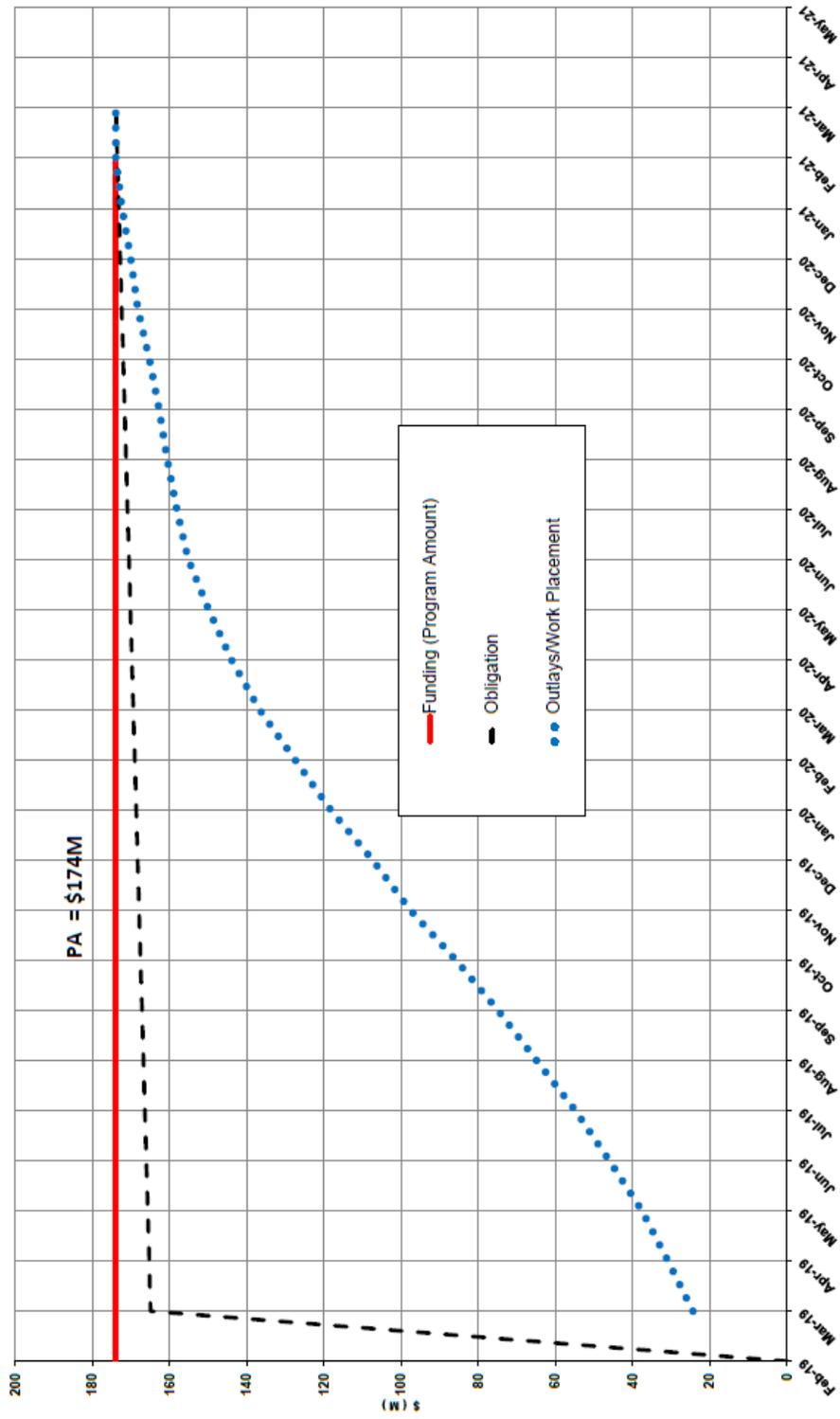
Equipment Nomenclature	Appropriation	FY Appropriated or Requested	Cost \$(000)
Site Activation	RDT&E	FY17-FY21	20,669
Security Equipment	RDT&E	FY17-FY21	<u>65</u>
TOTAL:			20,734

Research, Development, Test & Evaluation (RDT&E) funds are programmed for site activation to provide operations services & support throughout construction, installation and checkout. These services include lodging, dining, and security. Installed equipment includes special flooring, electronic controls to monitor electrical systems and the base infrastructure.



US Army Corps
of Engineers

Missile Defense Agency (MDA) Long Range Discrimination Radar System Complex, Alaska (MDA Project #659) - Work In Progress (WIP) Curve , date 5 October 2017



PA = \$174M

1. COMPONENT MDA		FY 2019 MILITARY CONSTRUCTION PROJECT DATA						2. DATE Feb 2018			
3. INSTALLATION AND LOCATION Fort Greely, Alaska				4. COMMAND Missile Defense Agency			5. AREA CONSTR. COST INDEX 2.51				
6. PERSONNEL		PERMANENT			STUDENTS			SUPPORTED			
STRENGTH: N/A: Tenant of U.S. Army		OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	TOTAL
7. INVENTORY DATA (\$000)											
A. TOTAL ACERAGE							N/A				
B. INVENTORY TOTAL AS OF							N/A				
C. AUTHORIZATION NOT YET IN INVENTORY							9,560				
D. AUTHORIZATION REQUESTED IN THE FY2018							200,000				
E. AUTHORIZATION REQUESTED IN THE FY2019							8,000				
F. PLANNED IN NEXT THREE PROGRAM YEARS							0				
G. REMAINING DEFICIENCY							0				
H. GRAND TOTAL.							217,560				
8. PROJECTS REQUESTED IN THE FY2019 PROGRAM:											
CATEGORY		PROJECT TITLE			SCOPE		COST (\$000)	DESIGN STATUS			
CODE								START		COMPLETE	
8222		Missile Field #1 Expansion			2,430 LF		8,000	Apr 18		Nov 18	
9. FUTURE PROJECTS:											
CATEGORY		PROJECT TITLE				SCOPE		COST (\$000)			
CODE											
10. MISSION OR MAJOR FUNCTIONS: The mission of the Missile Defense Agency (MDA) is to develop and field an integrated, layered Ballistic Missile Defense System (BMDS) to defend the United States, our deployed forces, allies, and friends against all ranges of enemy ballistic missiles in all phases of flight. The Missile Field #1 expansion project will provide the BMDS with increased ground-based interceptor (GBI) capabilities, to allow operational capability of 44 GBIs to be continuous during GBI maintenance activities. Planned enhancements and capabilities of the BMDS will ensure spare silos and GBIs are available to meet emerging threats and enhance our Nation's homeland defense.											
11. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:											
A. Air Pollution:							N/A				
B. Water pollution:							N/A				
C. Occupational safety and health (OSH):							N/A				

1. COMPONENT MDA	FY 2019 MILITARY CONSTRUCTION PROJECT DATA			2. DATE Feb 2018
3. INSTALLATION AND LOCATION Fort Greely, Alaska		4. PROJECT TITLE Missile Field #1 Expansion		
5. PROGRAM ELEMENT 0603882C	6. CATEGORY CODE 82221	7. PROJECT NUMBER MDA 679	8. PROJECT COST (\$000) 8,000	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITIES				
Chilled Water Line Extensions (82221)	LF	2,430	1,164	5,246 (2,828)
Silo Infrastructure Modifications (14951)	EA	2	122,000	(244)
Site Communications, Security Features	LS			(2,174)
SUPPORTING FACILITIES				
Electrical Services	LS			1,930 (1,189)
Chilled Water System Modifications	LS			(479)
Grounding/Temporary Power	LS			(85)
Paving	LS			(109)
Site Demo	LS			(4)
Other (Mob/Demob)	LS			(64)
SUBTOTAL				
CONTINGENCY PERCENT (5.0%)				7,176 359
TOTAL CONTRACT COST				7,535
SIOH (6.5 %)				490
TOTAL REQUEST				8,025
TOTAL REQUEST ROUNDED				8,000
INSTALLED EQPT-OTHER APPROPRIATIONS				(139,000)
<p>10. DESCRIPTION OF PROPOSED CONSTRUCTION: Construct Missile Field #1 (MF#1) expansion to include completing an additional 2 ground-based interceptor (GBI) launch facilities, and supporting utilities infrastructure in support of the Ballistic Missile Defense System (BMDS) at Fort Greely, AK.</p> <p>Existing silo infrastructure in MF#1 includes 14 unfinished and isolated silo shafts with liners. This project will construct chilled water line extensions from the existing utilidor (trunk line) piping to two of the unfinished silos.</p> <p>Additional silo infrastructure modifications will excavate, construct slabs, and backfill the openings for two new Silo Interface Vaults (SIVs) for launch equipment required to make the silos operational.</p> <p>This project will install new communication and security conduits for fiber optic cabling and security monitoring from existing manholes to the SIV/Silos.</p> <p>Supporting facilities will include installing electrical utilities from the duct banks to the SIVs.</p> <p>This project will include modifications to the chilled water system pumping capacity and to the demineralized/chilled water piping bundles consisting of carrier pipes within containment pipes in the Mechanical Electrical Building (MEB) to accommodate the two additional SIVs. This project will extend High Altitude Electromagnetic Pulse (HEMP) protected power to the SIV and HEMP modifications to the MEB to facilitate chiller system modifications.</p> <p>Site work will include repairing SIV grounding systems, providing temporary power to the SIV, new paving around the SIVs, and site demolition.</p> <p>Mobilization/Demobilization will consist of establishing a segregated construction laydown area and temporary environmental controls.</p>				

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<p>11. REQUIREMENT: 2,430 LF ADQT: 0 LF SUBSTD: None</p> <p><u>PROJECT:</u> Expand MF #1 to accommodate two additional GBIs, including site work, utilities, power and supporting infrastructure. (Current Mission)</p> <p><u>REQUIREMENT:</u> This project is required to provide the BMDS with increased GBI capabilities, to allow operational capability of 44 GBIs to be continuous during GBI maintenance activities. As adversaries continue to pursue credible and advanced capabilities, the U.S. must evolve its missile defense capabilities to outpace increasingly complex threats. Operational capability of the 6 existing GBIs at MF #1 will be maintained during upgrade activities. Due to the limited construction season in Alaska and the urgency of the requirement, the Department requests this project in FY 2019.</p> <p><u>CURRENT SITUATION:</u> The United States has 44 operational GBIs distributed between three missile fields at Fort Greely, Alaska and one missile field at Vandenberg AFB, CA. The existing situation is that no spare silos and GBIs are available to maintain the required 44 operational while GBI and Silo maintenance activities are performed. The completion of the FY 2018 MF #4 project will increase GBI availability to 64.</p> <p><u>IMPACT IF NOT PROVIDED:</u> Planned enhancements and capabilities of the BMDS to meet emerging threats will not be available for our Nation's homeland defense.</p> <p><u>ADDITIONAL INFORMATION:</u> 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.</p> <p>This project is being coordinated with the installation physical security plan and required physical security and/or combating terrorism (CBT/T) measures are being included. All required NEPA analyses will be completed prior to the start of construction.</p>																												
<p>12. SUPPLEMENTAL DATA:</p> <p>A. Estimated Execution Data</p> <table border="0" data-bbox="207 1381 1403 1793"> <tr> <td>(1) Acquisition Strategy:</td> <td>Design-Bid-Build</td> </tr> <tr> <td>(2) Design Data</td> <td></td> </tr> <tr> <td> (a) Design or request for Proposal (RFP) Started:</td> <td>Apr 2018</td> </tr> <tr> <td> (b) Percent Complete As Of January 2018</td> <td>0%</td> </tr> <tr> <td> (c) Design or RFP Complete:</td> <td>Nov 2018</td> </tr> <tr> <td> (d) Total Design Cost:</td> <td>800,000</td> </tr> <tr> <td> (e) Energy Study and/or Life Cycle Analysis performed</td> <td>No</td> </tr> <tr> <td> (f) Standard or definitive design used?</td> <td>Yes</td> </tr> <tr> <td>(3) Construction Data:</td> <td></td> </tr> <tr> <td> (a) Contract Award</td> <td>Mar 2019</td> </tr> <tr> <td> (b) Construction Start</td> <td>Jun 2019</td> </tr> <tr> <td> (c) Construction Completion</td> <td>Aug 2020</td> </tr> </table>					(1) Acquisition Strategy:	Design-Bid-Build	(2) Design Data		(a) Design or request for Proposal (RFP) Started:	Apr 2018	(b) Percent Complete As Of January 2018	0%	(c) Design or RFP Complete:	Nov 2018	(d) Total Design Cost:	800,000	(e) Energy Study and/or Life Cycle Analysis performed	No	(f) Standard or definitive design used?	Yes	(3) Construction Data:		(a) Contract Award	Mar 2019	(b) Construction Start	Jun 2019	(c) Construction Completion	Aug 2020
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3. INSTALLATION AND LOCATION Fort Greely, Alaska		4. PROJECT TITLE Missile Field #1 Expansion																																					
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<p>12. SUPPLEMENTAL DATA: (cont.)</p> <p>B. Equipment associated with this project which will be provided from other appropriations:</p> <table border="1"> <thead> <tr> <th data-bbox="97 546 779 630">Equipment Nomenclature</th> <th data-bbox="779 546 1071 630">Procuring Appropriation</th> <th data-bbox="1071 546 1396 630">FY Appropriated or Requested</th> <th data-bbox="1396 546 1542 630">Cost \$(000)</th> </tr> </thead> <tbody> <tr> <td data-bbox="97 651 779 682">GBI Launch Support Equipment</td> <td data-bbox="779 651 1071 682">RDT&E</td> <td data-bbox="1071 651 1396 682">FY18</td> <td data-bbox="1396 651 1542 682">70,000</td> </tr> <tr> <td data-bbox="97 682 779 714">GBI Launch Support Equipment</td> <td data-bbox="779 682 1071 714">RDT&E</td> <td data-bbox="1071 682 1396 714">FY19</td> <td data-bbox="1396 682 1542 714">1,000</td> </tr> <tr> <td data-bbox="97 714 779 745">GBI Launch Support Equipment</td> <td data-bbox="779 714 1071 745">RDT&E</td> <td data-bbox="1071 714 1396 745">FY20</td> <td data-bbox="1396 714 1542 745">5,000</td> </tr> <tr> <td data-bbox="97 745 779 777">GBI Launch Support Equipment</td> <td data-bbox="779 745 1071 777">RDT&E</td> <td data-bbox="1071 745 1396 777">FY21</td> <td data-bbox="1396 745 1542 777">5,000</td> </tr> <tr> <td colspan="2"></td> <td data-bbox="1071 777 1396 808">Total RDT&E:</td> <td data-bbox="1396 777 1542 808">81,000</td> </tr> <tr> <td data-bbox="97 840 779 871">Procure, Install, and Test SIV/Silos</td> <td data-bbox="779 840 1071 871">Procurement</td> <td data-bbox="1071 840 1396 871">FY19</td> <td data-bbox="1396 840 1542 871">58,000</td> </tr> <tr> <td colspan="2"></td> <td data-bbox="1071 882 1396 913">Total Procurement:</td> <td data-bbox="1396 882 1542 913">58,000</td> </tr> <tr> <td colspan="2"></td> <td data-bbox="1071 924 1396 955">Total:</td> <td data-bbox="1396 924 1542 955">139,000</td> </tr> </tbody> </table>				Equipment Nomenclature	Procuring Appropriation	FY Appropriated or Requested	Cost \$(000)	GBI Launch Support Equipment	RDT&E	FY18	70,000	GBI Launch Support Equipment	RDT&E	FY19	1,000	GBI Launch Support Equipment	RDT&E	FY20	5,000	GBI Launch Support Equipment	RDT&E	FY21	5,000			Total RDT&E:	81,000	Procure, Install, and Test SIV/Silos	Procurement	FY19	58,000			Total Procurement:	58,000			Total:	139,000
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