Missile Defense Agency

Fiscal Year 2014

President's Budget Submittal

Military Construction Exhibit

April 2013

MISSILE DEFENSE AGENCY
FY 2014 MILITARY CONSTRUCTION, DEFENSE-WIDE
PRESIDENT'S BUDGET SUBMITTAL
DESCRIPTIVE SUMMARIES

($ in Thousands)

Program	**Authorization**	**Appropriation**
Major Construction	114,204	199,204
Unspecified Minor Construction	2,000	2,000
MILCON Planning & Design	10,891	10,891
TOTAL MILITARY CONSTRUCTION	127,095	212,095

MISSILE DEFENSE AGENCY
FY 2014 MILITARY CONSTRUCTION, DEFENSE-WIDE
PROJECT SUMMARY
BY LOCATION

($ in Thousands)

State/Country/Installation/Project	Auth Request	Approp Request	New/Current Mission
Major Construction			
Alaska			
Clear Air Force Station			
BMDS Upgrade Early Warning Radar	17,204	17,204	New
Ft. Greely			
Mechanical-Electrical Building, Missile Field #1	82,000	82,000	New
Worldwide Classifed			
AN/TPY-2 Radar Site	15,000	15,000	New
Romania			
Deveselu Base			
Aegis Ashore Missile Defense System Complex, Increment 2	-	85,000	New
Unspecified Minor Construction	2,000	2,000	
MILCON Planning and Design	10,891	10,891	
TOTAL MILITARY CONSTRUCTION	127,095	212,095	

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION	4. COMMAND	5. AREA CONSTR. COST INDEX
Clear Air Force Station, Alaska	Missile Defense Agency	2.01

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	.....	0
D. AUTHORIZATION REQUESTED IN THE FY2014	.....	17,204
E. AUTHORIZATION REQUESTED IN THE FY2015	.....	0
F. PLANNED IN NEXT THREE PROGRAM YEARS	.....	0
G. REMAINING DEFICIENCY	.....	0
H. GRAND TOTAL.	.....	17,204

8. PROJECTS REQUESTED IN THE FY2014 PROGRAM:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)	DESIGN STATUS START	DESIGN STATUS COMPLETE
1311	BMDS Upgrade Early Warning Radar	7,400 SF	17,204	Mar 12	Dec 13

9. FUTURE PROJECTS:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)

10. MISSION OR MAJOR FUNCTIONS: The mission of the Missile Defense Agency 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.

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	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION6	4. PROJECT TITLE
Clear Air Force Station, Alaska	BMDS Upgrade Early Warning Radar

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
0603884C	1311	MDA 634	17,204

9. COST ESTIMATES

ITEM	U/M (M/E)	QUANTITY	UNIT COST	COST ($000)
PRIMARY FACILITIES				12,688
Add/Alter Radar Building	m2 (SF)	474 (5,100)	11,556 (1,074)	(5,476)
SATCOM Earth Terminal Fac (HEMP)	m2 (SF)	214 (2,300)	9,813 (913)	(2,100)
SATCOM Integrated Walkway/Utilidor	m2 (SF)	74 (799)	15,138 (1,402)	(1,120)
3MW Power Generator	KW	3000	1,330	(3,992)
SUPPORTING FACILITIES				2,697
HVAC/Electrical/Telecom Services	LS			(933)
Water, Sewer, Gas	LS			(185)
Paving, Walks, Curbs and Gutters	LS			(121)
Anti-Terrorism/Force Protection	LS			(106)
Site Imp (429)/Demo (100)	LS			(529)
Other (Mob/Demob)	LS			(823)
SUBTOTAL				15,385
CONTINGENCY (5%)				769
TOTAL CONTRACT COST				16,154
SIOH (6.5%)				1,050
TOTAL REQUEST				17,204
TOTAL REQUEST ROUNDED				17,204
INSTALLED EQUIPMENT-OTHER APPROP				(150,700)

10. DESCRIPTION OF PROPOSED CONSTRUCTION: Modify existing Phased Array Radar Facility to enable installation of the Upgrade Early Warning Radar (UEWR) equipment, Missile Defense Communication Network equipment, Single Stimulation Framework equipment, and the Satellite Communication Earth Terminal equipment. Provide modifications on various floors of the radar building including the existing communication room, computer room, radar room, Missile Warning Operation Center and related support spaces as necessary. Modify power and HVAC systems to allow simultaneous operation of both new and legacy UEWR equipment. Demolish existing fuel tank foundation and piping to construct a new concrete foundation and pad for the Earth Terminal antenna radome. Construct an integrated walkway/utilidor to provide High Altitude Electromagnetic Pulse (HEMP) and weather protected connections between the UEWR facility and the new antenna. Install one additional 3MW generator in the existing power plant. Supporting facilities include: electrical services, water, sewer, storm drainage, fire protection and alarm systems, telecommunications systems, and anti-terrorism/force protection security measures to include vehicle denial capability. Access for the physically disabled will be maintained.

11. REQUIREMENT: 7,400 SF ADEQUATE: - SUBSTANDARD: -7,400 SF

PROJECT: Construct facility modifications to upgrade the existing Early Warning Radar at Clear Air Force Station (AFS) in support of the Missile Defense Agency's (MDA) Ballistic Missile Defense System. (New Mission)

REQUIREMENT: This project is required to enhance existing Early Warning Radars and satellite communications capability designed to support the Missile Defense Agency's enhanced homeland defense capability.

CURRENT SITUATION: Current Early Warning Radar at Clear Air Force Station does not have enhanced sensor capabilities to adequately meet technological and threat assessments to support the Ballistic Missile Defense System (BMDS). This project supports the BMDS and enables the Early Warning Radar at Clear AFS to support planned enhanced homeland defense.

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION
Clear Air Force Station, Alaska

4. PROJECT TITLE : BMDS Upgrade Early Warning Radar	5. PROJECT NUMBER
	MDA 634

11. REQUIRED (cont) :

IMPACT IF NOT PROVIDED: If this project is not funded, planned enhancement of the sensors and communications systems elements will not be available to support enhanced homeland defensive operations in 2018. Ultimately, the full potential to defend the United States against limited ballistic missile attack will not be achieved.

ADDITIONAL INFORMATION: Cost estimates were derived from RS Means Construction Cost data, DoD Facilities Pricing Guide, UFC 3-701-09, analyzing costs for similar existing facilities at Thule, Greenland and then updated based on 35% design. This project has been coordinated with the installation's physical security plans and required physical security and/or combating terrorism measures are included. Environmental analysis and documentation has been coordinated with US Air Force Space Command. Recent Air Force Space Command modifications to the power plant have allowed room for the MDA generator. The Air Force also intends to upgrade the sensored perimeter fence and construct two fuel tanks to support the power plant.

12. SUPPLEMENTAL DATA:

A. Estimated Design Data

(1) Status	
(a) Date Design Started:	Mar 2012
(b) Percent complete as of January 2013:	35%
(c) Date 35% Design Complete:	Sep 2012
(d) Date Design Complete:	Dec 2013
(e) Parametric Cost Estimating Used to Develop Costs:	No
(f) Type of Design Contract:	Design-Bid-Build
(2) Basis	
(a) Standard or Repetitive Design	No
(b) Where Design Was Most Recently Used	N/A
(3) Total Design Cost (c) = (a)+(b) or (d)+(e)	($000)
(a) Production of Plans and Specifications:	444
(b) All Other Design Costs:	656
(c) Total Design Costs	1,100
(d) Contract	766
(e) In-house	334
(4) Construction Contract Award	Jan 2014
(5) Construction Start	Feb 2014
(6) Construction Complete	Mar 2016

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION
Clear Air Force Station, Alaska

4. PROJECT TITLE : BMDS Upgrade Early Warning Radar	5. PROJECT NUMBER
	MDA 634

12. SUPPLEMENTAL DATA: (cont)

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

Equipment Nomenclature	Procuring Appropriation	Fiscal Year Appropriated Or Requested	Cost ($000)
Long Lead Radar Equipment	RDT&E	FY13	$ 127,000
Network Equipment	RDT&E	FY13	$ 4,700
AN/GSC-52B(V)6 Earth Terminal	RDT&E	FY13	$ 11,000
Miscellaneous Equip Costs	RDT&E	FY13	$ 8,000
		TOTAL	$ 150,700

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION	4. COMMAND	5. AREA CONSTR. COST INDEX
Ft. Greely, Alaska	Missile Defense Agency	2.02

6. PERSONNEL STRENGTH:	PERMANENT			STUDENTS			SUPPORTED			
	OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	TOTAL
N/A: Tenant of U.S. Army										

7. INVENTORY DATA ($000)

A. TOTAL ACERAGE	.....	N/A
B. INVENTORY TOTAL AS OF	.....	N/A
C. AUTHORIZATION NOT YET IN INVENTORY	.....	0
D. AUTHORIZATION REQUESTED IN THE FY2014	.....	82,000
E. AUTHORIZATION REQUESTED IN THE FY2015	.....	0
F. PLANNED IN NEXT THREE PROGRAM YEARS	.....	0
G. REMAINING DEFICIENCY	.....	0
H. GRAND TOTAL.	.....	82,000

8. PROJECTS REQUESTED IN THE FY2014 PROGRAM:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)	DESIGN STATUS START	DESIGN STATUS COMPLETE
8910	Mechanical-Electric Building Missile Field 1	10,400 SF	82,000	Apr 13	Jul 14

9. FUTURE PROJECTS:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)

10. MISSION OR MAJOR FUNCTIONS: The mission of the Missile Defense Agency 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.

11. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:

A. Air Pollution:	N/A
B. Water pollution:	N/A
C. Occupational safety and health (OSH):	N/A

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1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
Fort Greely, Alaska	Mechanical-Electrical Building, Missile Field #1

8. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
0603882C	8910	MDA 649	82,000

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST $(000)
PRIMARY FACILITIES				56,029
Mechanical-Electrical Building (MEB)	m2 (SF)	966 (10,400)	10,178 (945)	(9,832)
MEB Blast Protection	LS			(10,605)
MEB HEMP & EMI Protection	LS			(7,858)
Special Foundations	LS			(6,908)
Installed Equipment	LS			(6,565)
Extend Utilidor & Interface	LS			(12,261)
Security Infrastructure	LS			(2,000)
SUPPORTING FACILITIES				14,312
Site HEMP Electrical	LS			(3,523)
Water, Sewer, Gas	LS			(1,000)
Paving, Walks	LS			(1,501)
Site Imp / Demo	LS			(7,038)
Information/Communication Systems	LS			(1,250)
SUBTOTAL				70,341
CONTINGENCY (5.00%)				3,517
TOTAL CONTRACT COST				73,858
DESIGN/BUILD DESIGN COST (4.00%)				2,954
SIOH (6.50%)				4,801
TOTAL REQUEST				81,613
TOTAL ROUNDED REQUEST				82,000
INSTALLED EQUIPMENT-OTHER APPROP				2,500

10. DESCRIPTION OF PROPOSED CONSTRUCTION: Construct a High Altitude Electromagnetic Pulse (HEMP) and blast protected Mechanical-Electrical Building (MEB) and associated utility and security infrastructure. The MEB construction utilizes reinforced concrete walls and ceiling for blast protection covered with metal panels, and a standing seam metal roof. Special foundations will be required for the MEB. The MEB will house redundant HEMP protected mechanical and electrical equipment supporting the launch control components. Other MEB construction includes lightning protection and equipment grounding systems.

MEB Blast Protection consists of 20-inch thick reinforced concrete walls and ceiling, blast rated doors and valves, and foundation substructure anchoring.

MEB HEMP and Electromagnetic Interference (EMI) Protection include 1/4-inch thick steel plates and custom built specialty power filters that provide HEMP and EMI protection. The HEMP and EMI protection is required to be tested and certified.

The MEB foundations include special features to meet site specific ground motion requirements, seismic requirements, and blast protection requirements.

Installed Equipment within the MEB supports the launch control components within the silos interface vaults and includes: dual chillers, heat exchanger, water pumps, demineralizing system for humidity control, transformers, uninterruptable

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION
Fort Greely, Alaska

4. PROJECT TITLE	5. PROJECT NUMBER
Mechanical-Electrical Building, Missile Field #1	MDA 649

10. DESCRIPTION OF PROPOSED CONSTRUCTION (CONTINUED):
power system, and electronic controls to monitor building systems and the base infrastructure.

The MEB will contain an underground utility vault entrance and utilidor extension that will connect to the existing Missile Field 1 utilidor. Utility branch lines to the silos and silo interface vaults will be restored to meet current mission requirements.

Security measures include intrusion detection, access control, and construction escorts.

Supporting facilities include: HEMP protected electrical distribution, water, sewer, paving, fire protection and alarm systems, site improvements, information management systems, and demolition.

11. REQUIRED: 10,400 SF ADEQUATE: NONE SUBSTANDARD: NONE

PROJECT: Construct HEMP and blast protected Mechanical-Electrical Building (MEB), associated security infrastructure, and supporting facilities. (New Mission)

REQUIREMENT: This project is required to provide the Ground Based Mid-course Defense System with increased capabilities to enhance homeland defense. This project constructs a HEMP and blast protected MEB that supports current survivability and reliability, availability, and maintainability (RAM) requirements, and upgrades the security and lighting infrastructure to meet System Security Level-A (SSL-A) requirements. Redundant HEMP protected utility feeds are required for mission critical equipment. The new MEB will allow the upgraded Missile Field 1 to increase the potential number of operational interceptor silos at Fort Greely, AK.

CURRENT SITUATION: The existing MEB at Missile Field 1 was built as a test bed and provided limited defense capability. The existing missile field and utility infrastructure is not HEMP protected and does not have the redundancy that is required of an operational weapon system. The lack of a HEMP protected facility and redundant HEMP protected utilities could compromise the mission readiness and capability of the Ground Based Mid-course System if Missile Field 1 were to be re-utilized to perform missile defense operations.

IMPACT IF NOT PROVIDED: Planned enhancements and capabilities of the Ballistic Missile Defense System will not be available for our Nation’s homeland defense.

ADDITIONAL INFORMATION: This project is being coordinated with the appropriate physical security plans and includes required physical security and/or combating terrorism measures. All required NEPA and/or EO 12114 analyses will be completed prior to the start of construction.

The MEB site adapt design will be based upon the existing MEB-2 at Missile Field 2 Fort Greely, AK, to included enhanced design for supporting HEMP infrastructure.

A companion infrastructure repair project, funded with RDT&E, is being programmed for other Missile Field 1 components to meet current missile field standards.

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION
Fort Greely, Alaska

4. PROJECT TITLE	5. PROJECT NUMBER
Mechanical-Electrical Building, Missile Field #1	MDA 649

12. SUPPLEMENTAL DATA:

A. Estimated Design Data

(1) Status:	
(a) Date Design Started	Apr 2013
(b) Percent Complete As Of January 2013	0%
(c) Date 35% Design Complete	Mar 2014
(d) Date Design Complete	Jul 2014
(e) Analogous Cost Estimating Used To Develop Cost	Yes
(f) Type of Design Contract	Design-Build
(2) Basis:	
(a) Standard or Repetitive Design	Yes*
(b) Where Design Was Most Recently Used	Alaska
(3) Total Design Cost (c) = (a)+(b) or (d)+(e)	($000)
(a) Production of Plans and Specifications	4,200
(b) All Other Design Costs	2,800
(c) Total Design Costs	7,000
(d) Contract	5,000
(e) In-House	2,000
(4) Contract Award	Feb 2014
(5) Construction Start	Apr 2014
(6) Construction Completion	May 2016

* The MEB design-build will be based upon the existing MEB-2 at Missile Field 2 Fort Greely, AK, to included enhanced design for supporting HEMP infrastructure.

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

Equipment Nomenclature	Procuring Appropriation	FY Appropriated or Requested	Cost $(000)
Security Equipment	RDT&E	FY14	2,500

DD FORM 1391

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION	4. COMMAND	5. AREA CONSTR. COST INDEX
Worldwide Classified	Missile Defense Agency	1.40

6. PERSONNEL STRENGTH:	PERMANENT			STUDENTS			SUPPORTED			
	OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	TOTAL
N/A: Tenant of U.S. Army										

7. INVENTORY DATA ($000)

A. TOTAL ACERAGE	.....	N/A
B. INVENTORY TOTAL AS OF	.....	N/A
C. AUTHORIZATION NOT YET IN INVENTORY	.....	0
D. AUTHORIZATION REQUESTED IN THE FY2014	.....	15,000
E. AUTHORIZATION REQUESTED IN THE FY2015	.....	0
F. PLANNED IN NEXT THREE PROGRAM YEARS	.....	0
G. REMAINING DEFICIENCY	.....	0
H. GRAND TOTAL.	.....	15,000

8. PROJECTS REQUESTED IN THE FY2014 PROGRAM:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)	DESIGN STATUS START	DESIGN STATUS COMPLETE
3121	AN/TPY-2 Radar Site	1 EA	15,000	Mar 13	Jan 14

9. FUTURE PROJECTS:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)

10. MISSION OR MAJOR FUNCTIONS: The mission of the Missile Defense Agency 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.

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	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

5. INSTALLATION AND LOCATION6	6. PROJECT TITLE
Worldwide Classified	AN/TPY-2 Radar Site

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
0603884C	3121	MDA 648	15,000

9. COST ESTIMATES

ITEM	U/M (M/E)	QUANTITY	UNIT COST	COST ($000)
PRIMARY FACILITIES				8,549
Modular Facilities	EA	4	69,500	(278)
Clearing and Grubbing	AC	3.2	111,665	(357)
Concrete Slab - Radar area	SY	544	583.88	(318)
Security Fencing and Lighting	LF	9270	207.56	(1,924)
Security Facilities & Infrastructure	LS			(4,976)
Fuel System and Storage	LS			(696)
SUPPORTING FACILITIES				4,161
Site Electrical	LS			(830)
Water, Sewer, Gas	LS			(1,236)
Site Improvement/Earthwork	LS			(900)
Information/Communication Systems	LS			(600)
Other (Mob/Demob)	LS			(595)
SUBTOTAL				12,710
CONTINGENCY (10%)				1,271
TOTAL CONTRACT COST				13,981
SIOH (6.5%)				909
TOTAL REQUEST				14,890
TOTAL REQUEST ROUNDED				15,000
INSTALLED EQUIPMENT-OTHER APPROP				(189,490)

10. DESCRIPTION OF PROPOSED CONSTRUCTION: Construct a site to support the Army/Navy Transportable Radar Surveillance (AN/TPY-2) radar and equipment, to include concrete and gravel hardstands, operations facility, maintenance facility, storage facility, entry control point, security control center, Electronic Security System infrastructure, security lighting, security fencing, security barriers, fuel storage system, and lightning protection and grounding system. Supporting facilities include power distribution system, communications network, asphalt pavement, gravel pavement, sanitary sewers, water distribution lines, and site improvements. Life support facilities and additional Antiterrorism/Force Protection measures will be provided by the U.S. Army.

11. REQUIREMENT: 1 EA ADEQUATE: None SUBSTANDARD: None

PROJECT: Prepare a new PACOM site to host the AN/TPY-2 radar components, support facilities, and infrastructure. (New Mission)

REQUIREMENT: The AN/TPY-2 radar requires a prepared site, support facilities, and infrastructure to provide more robust regional defensive and homeland defensive capabilities against short/medium/intermediate-range ballistic missile threats. The radar is an element of the Ballistic Missile Defense System (BMDS) and provides a forward sensor for early detection, tracking and discrimination of threats. The radar transmits the track data to the BMDS Command and Control, Battle Management and Communications (C2BMC) within a layered sensor network to accurately locate, discriminate, and track threats.

CURRENT SITUATION: There are currently no adequate sites in the PACOM area of responsibility able to receive the radar and supporting equipment, and meet the performance requirements. Deployment and operation of the radar is not possible without preparation of the site.

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION
Worldwide Classified

4. PROJECT TITLE : AN/TPY-2 Radar Site	5. PROJECT NUMBER
	MDA 648

11. REQUIRED (cont) :

IMPACT IF NOT PROVIDED: If this project is not provided, the radar cannot be deployed, limiting the capability of the BMDS to defend against regional threats. Deployment & operation of the radar is not possible without preparing this site.

ADDITIONAL INFORMATION: Analogous cost estimates were derived by analyzing costs for similar designed facilities that have been constructed at other locations.

This project is being coordinated with the appropriate physical security plans. Required physical security and/or anti-terrorism and force protection measures will be included to meet Security System Level A (SSL-A) requirements. All requirements of Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, will be completed prior to construction start.

The Army is programming a companion FY14 Forward Operating Site, OCONUS project that will provide Base Operations Support for this radar site. The Army funded project will include dining and recreation space for site personnel as well as site security, administration, medical treatment, base maintenance and warehouse space.

Extension of upgraded commercial power to the site will be acquired with other appropriations, and provided in accordance with applicable Defense Federal Acquisition Regulations (DFARs) for utility service contracts.

Temporary site activation facilities will be Research, Development, Test and Evaluation (RDT&E) funded and installed at the site, prior to construction start, to provide for site security, coordination and construction material surveillance. All surveillance equipment will be RDT&E funded.

12. SUPPLEMENTAL DATA:

A. Estimated Design Data

(1) Status	
(a) Date Design Started:	Mar 2013
(b) Percent complete as of January 2013:	0%
(c) Date 35% Design Complete:	Sep 2013
(d) Date Design Complete:	Jan 2014
(e) Analogous Cost Estimating Used to Develop Costs:	Yes
(f) Type of Design Contract:	Design-Bid-Build
(2) Basis	
(a) Standard or Repetitive Design	Yes
(b) Where Design Was Most Recently Used	Turkey
(3) Total Design Cost (c) = (a)+(b) or (d)+(e)	($000)
(a) Production of Plans and Specifications:	870
(b) All Other Design Costs:	580
(c) Total Design Costs	1,450
(d) Contract	1,020
(e) In-house	430
(4) Construction Contract Award	Mar 2014
(5) Construction Start	May 2014
(6) Construction Complete	Dec 2014

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION
Worldwide Classified

4. PROJECT TITLE : AN/TPY-2 Radar Site	5. PROJECT NUMBER
	MDA 648

12. SUPPLEMENTAL DATA: (cont)

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

Equipment Nomenclature	Procuring Appropriation	FY Appropriated or Requested	Cost $(000)
Radar Mission Equipment	RDT&E	FY11	175,000
Mission C2BMC Equipment	RDT&E	FY13	6,400
Comms Support Equipment	RDT&E	FY13/14	210
IESS Equipment	RDT&E	FY13/14	2,200
Generators	RDT&E	FY13/14	2,510
RST and Long Lead Material	RDT&E	FY13/14	2,420
		SUB-TOTAL	188,740
Extension of Commercial Power	RDT&E	FY15	750
		SUB-TOTAL	750
		TOTAL RDT&E	189,490

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION	4. COMMAND	5. AREA CONSTR. COST INDEX
Deveselu Base, Romania	Missile Defense Agency	0.99

6. PERSONNEL	PERMANENT			STUDENTS			SUPPORTED			
STRENGTH:	OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	OFFICER	ENLISTED	CIVILIAN	TOTAL
N/A: Tenant of U.S. Navy										

7. INVENTORY DATA ($000)

A. TOTAL ACERAGE	.....	N/A
B. INVENTORY TOTAL AS OF	.....	N/A
C. AUTHORIZATION NOT YET IN INVENTORY	.....	0
D. AUTHORIZATION REQUESTED IN THE FY2014	.....	0
E. AUTHORIZATION REQUESTED IN THE FY2015	.....	0
F. PLANNED IN NEXT THREE PROGRAM YEARS	.....	0
G. REMAINING DEFICIENCY	.....	0
H. GRAND TOTAL.	.....	0

8. PROJECTS REQUESTED IN THE FY2014 PROGRAM:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)	DESIGN STATUS START	DESIGN STATUS COMPLETE
1456	Aegis Ashore Missile Defense System Complex, Increment 2	1 EA	85,000	Sep 11	Jan 13

9. FUTURE PROJECTS:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)

10. MISSION OR MAJOR FUNCTIONS: The mission of the Missile Defense Agency 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.

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	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
Deveselu Base, Romania	Aegis Ashore Missile Defense System Complex, Increment 2

8. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
0603892C	1456	MDA 646	85,000

9. COST ESTIMATES

ITEM	U/M (M/E)	QUANTITY	UNIT COST	COST $(000)
PRIMARY FACILITIES				150,830
Launch Area Infrastructure	EA	3	179,800	(539)
HEMP Radar Deckhouse Support Bldg	m2 (SF)	2,703 (29,100)	9,903 (920)	(26,772)
Radar Deckhouse Foundation	m3 (CY)	268 (350)	1,569 (1,200)	(420)
Special Construction	LS			(980)
Installed Equipment	LS			(4,050)
HEMP Power Infrastructure	LS			(72,000)
Non-HEMP Backup Power	LS			(5,500)
Missile Storage Facility	m2 (SF)	111 (1,200)	9,903 (920)	(1,104)
Communications Equipment Pad	m2 (SF)	1,282 (13,800)	172 (16)	(221)
Secure Warehouse	m2 (SF)	242 (2,600)	5,382 (500)	(1,300)
Fire Station	m3 (SF)	585 (6,300)	6,189 (575)	(3,623)
Entry Control Facility	m2 (SF)	418 (4,500)	4,575 (425)	(1,913)
Central Security Control Facility	m2 (SF)	734 (7,900)	5,597 (520)	(4,108)
Security Fence/Gates/Lighting/ESS	LS			(5,500)
Fuel System and Storage Facilities	BL (GA)	6,430 (200,000)	1,262 (20)	(4,000)
Temporary Facilities/Mob/Demob	LS			(18,800)
SUPPORTING FACILITIES				44,600
Site Electrical	LS			(800)
Non-HEMP distribution	LS			(5,000)
Power Distribution ductbank	LS			(11,000)
Water, Sewer, Gas	LS			(3,200)
Water Supply Building and Storage	LS			(4,800)
Site Improvement/Demo	LS			(14,000)
Pavements & Walkways	LS			(3,200)
Information/Communication Systems	LS			(1,200)
Antiterrorism/Force Protection	LS			(1,400)
SUBTOTAL				195,430
CONTINGENCY (5.00%)				9,771
TOTAL CONTRACT COST				205,201
SIOH (6.50%)				13,338
DBA Insurance Costs				2,240
TOTAL REQUEST				220,779
TOTAL ROUNDED REQUEST				220,800
INSTALLED EQUIPMENT-OTHER APPROP				(380,035)

10. DESCRIPTION OF PROPOSED CONSTRUCTION: This project constructs an Aegis Ashore Missile Defense System site in Romania utilizing the Aegis shipboard weapon system; launcher, radar, and command and control components. Congress authorized the full amount of $220.8M in the NDAA for FY13 and authorized appropriations of $120.0M (MDA 630). The FY14 funding represents the second increment of this effort. The site will consist of three Mark-41 launcher foundations, aprons and crane pads; Radar Deckhouse foundation and High-Altitude Electromagnetic Pulse (HEMP) protected Aegis Radar Deckhouse Support Building; 4MW of HEMP protected backup power, with a redundant N+2 capacity using relocatable generators, switchgear and transformer components; HEMP protected power distribution system; communications equipment pad; missile storage facility; secure warehouse; 90,000 gallon diesel fuel storage for backup generators; 10,000 gallon diesel fuel storage tank and fuel truck offload facility; two 100,000 gallon fire water storage tanks and suppression pumps; central security control facility; entry control facility; electronic security

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION
Deveselu Base, Romania

4. PROJECT TITLE	5. PROJECT NUMBER
Aegis Ashore Missile Defense System Complex, Increment 2	MDA 646

10. DESCRIPTION OF PROPOSED CONSTRUCTION (cont) : system infrastructure; perimeter security fencing, gates and patrol road within the restricted area boundary.

Supporting facilities include: electrical services; water; sewer; paving; Walkways; storm drainage; fire protection and alarm systems; site improvements; telecommunication and information management systems. The project also includes a sewage lift station; water supply wells; water treatment plant; and a 30,000 gallon potable water storage tank. Access for handicapped will be provided. Temporary facilities will support construction oversight and equipment installation.

The launcher pads, radar deckhouse, and deckhouse support building foundations include special features to meet technical stability requirements and fill material to provide positive drainage away from facilities.

Special construction includes lightning protection, equipment grounding systems, and Electromagnetic Interference shielding and testing in mission support areas. The radar deckhouse and support building will receive Nuclear/Biological/Chemical protection.

Installed equipment includes raised flooring, redundant mechanical and electrical systems, uninterruptable power system and electronic controls to monitor building systems and the base infrastructure.

Temporarary facilities, mobilization/demobilization includes provisions for a construction man-camp based upon the remote rural location of Deveselu and the non-availability of skilled workers necessary to construct a highly technical missile defense site.

11. REQUIRED: 1 EA ADEQUATE: NONE SUBSTANDARD: NONE

PROJECT: Construct a new Aegis Ashore Missile Defense System Complex in Romania. (New Mission)

REQUIREMENT: This project is required to enhance a more robust regional ballistic missile defense through the European Phased Adaptive Approach Phase II against short/medium-range ballistic missile threats to European Allies and deployed troops.

CURRENT SITUATION: There is currently no land-based ballistic missile defense configuration in Europe. In keeping with the 17 September 2009 announcement by the President of the United States, this project is necessary to meet the European Phased Adaptive Approach Phase II deployment of a land-based Aegis ballistic missile defense system configuration in southern Europe by 2015.

IMPACT IF NOT PROVIDED: If this project is not provided, the Aegis Ashore capability will not be able to be deployed. If the Aegis Ashore Missile Defense System site is not developed, the Phased Adaptive Approach Phase II timeline to deploy a land-based Aegis ballistic missile defense capability in Europe, as announced by the President of the United States, will not be met.

ADDITIONAL INFORMATION: The Navy is programming a concurrent companion project (FY13 Navy Worldwide P400, Aegis Ashore Missile Defense Complex) that will provide Base Operations Support for this Aegis Ashore Missile Defense System site. The Navy funded project will include living, dining, and recreation space for site personnel as well as site security, administration, medical treatment, base maintenance and warehouse space.

Extension of upgraded commercial power to the site will be acquired during site activation, funded with other appropriations, and provided in accordance with applicable Defense Federal Acquisition Regulations (DFARs) for utility service contracts.

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION
Deveselu Base, Romania

4. PROJECT TITLE	5. PROJECT NUMBER
Aegis Ashore Missile Defense System Complex, Increment 2	MDA 646

11. REQUIRED (cont) :

Temporary site activation facilities will be Research, Development, Test and Evaluation (RDT&E) funded and installed at the site, prior to construction start, to provide for site security, coordination and construction material surveillance. All surveillance equipment and activities will be RDT&E funded.

The reconstitutable Radar Deckhouse will be fabricated, erected and tested as an RDT&E effort at Moorestown, NJ as part of MDA project 627. Once testing is complete, the radar deckhouse will be disassembled and shipped to Romania, where it will be installed on the deckhouse foundation and integrated into the deckhouse support infrastructure on site (see Block 12 paragraph B for cost details).*

Cost estimates were derived from the DoD MILCON Pricing Guide(UFC 3-701-01, June 2010), US Army Corps of Engineers Programming Administration and Execution System (PAX), GSA Pricing Guides, RS Means and by analyzing costs for similar designed facilities that are being constructed at the Pacific Missile Range Facility, HI and updated based on 65% design quantity takeoffs. This project is being coordinated with the appropriate physical security plans. Required physical security and/or anti-terrorism and force protection measures will be included. All requirements of Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, will be completed prior to construction start.

*-The RDT&E narrative shown above and costs (Block 12, paragraph B) were updated from the DD 1391 included in the FY 2013 MILCON Defense Wide Justification Book in order to clarify the relocation of the Moorestown Deckhouse to Romania.

12. SUPPLEMENTAL DATA:

A. Estimated Design Data

(1) Status:	
(a) Date Design Started	Sep 2011
(b) Percent Complete as of January 2013	100%
(c) Date 35% Design Complete	Apr 2012
(d) Date Design Complete	Jan 2013
(e) Parametric Cost Estimating Used To Develop Cost	No
(f) Type of Design Contract	Design-Bid-Build
(2) Basis:	
(a) Standard or Repetitive Design	Yes
(b) Where Design Was Most Recently Used	PMRF, HI
(3) Total Design Cost (c) = (a)+(b) or (d)+(e)	($000)
(a) Production of Plans and Specifications	9,500
(b) All Other Design Costs	6,300
(c) Total Design Costs	15,800
(d) Contract	11,060
(e) In-House	4,740
(4) Contract Award	May 2013
(5) Construction Start	Jun 2013
(6) Construction Completion	Apr 2015

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION
Deveselu Base, Romania

4. PROJECT TITLE	5. PROJECT NUMBER
Aegis Ashore Missile Defense System Complex, Increment 2	MDA 646

12. SUPPLEMENTAL DATA (cont) :

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

Equipment Nomenclature	Procuring Appropriation	FY Appropriated or Requested	Cost $(000)
Aegis Weapon System Equipment	RDT&E	FY12/13	241,800
Aegis Ashore Launch Equipment	RDT&E	FY12/13/14/15	36,000
Non-Mission Comms Equipment	RDT&E	FY13/14/15	3,800
Mission Communications Equipment	RDT&E	FY13/14	8,500
Command and Control Equipment	RDT&E	FY12/13/14/15	27,000
Ancillary Equipment	RDT&E	FY11/12	41,500
		SUB-TOTAL	358,600
Extension of Commercial Power	RDT&E	FY/12/13	4,700
		SUB-TOTAL	4,700
Moorestown, NJ**			
Disassembly/pack/ship Deckhouse	RDT&E	FY14	6,245
Installation and reassembly in Romania	RDT&E	FY14/15	10,490
		SUB-TOTAL	16,735
		TOTAL RDT&E	380,035

*-The RDTE narrative shown above (Block 11) and costs (Block 12, paragraph B) were updated from the DD 1391 included in the FY 2013 MILCON Defense Wide Justification Book in order to clarify the relocation of the Moorestown Deckhouse to Romania.

**-Radar Deckhouse previously acquired as part of MDA project 627

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
Various Worldwide Locations	Unspecified Minor Construction

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
N/A	N/A	N/A	2,000

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Unspecified Minor Construction	LS			2,000
ESTMATED CONTRACT COST				2,000
CONTINGENCY PERCENT (0.0%)				
SUBTOTAL				2,000
SUPERVISION, INSPECTION & OVERHEAD (0.0%)				0
TOTAL REQUEST				2,000
TOTAL REQUEST (ROUNDED)				2,000
INSTALLED EQPT-OTHER APPROPRIATIONS				(0)

10. DESCRIPTION OF PROPOSED CONSTRUCTION: Provide a lump sum amount for unspecified construction projects, not otherwise authorized by law, having a funded cost of $2 million or less, including normal construction, alteration or conversion of permanent or temporary facilities and projects having a funded cost of $3 million or less that are intended solely to correct a deficiency that is life-threatening, health-threatening, or safety-threatening, in accordance with 10 USC Section 2805.

11. REQUIREMENT: As required

REQUIREMENT: These funds provide MDA the capability to react in FY 2014 to requirements for construction, alteration, or modification of facilities resulting from unforeseen situations affecting mission performance or safety of life or property. Included would be projects to support mission critical research and development requirements of the Ballistic Missile Defense System.

1. COMPONENT	FY 2014 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Mar 2013

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
Various Worldwide Locations	Planning and Design

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
N/A	N/A	N/A	10,891

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Planning and Design	LS			10,891
ESTMATED CONTRACT COST				10,891
CONTINGENCY PERCENT (0.0%)				0
SUBTOTAL				10,891
SUPERVISION, INSPECTION & OVERHEAD (0.0%)				0
TOTAL REQUEST				10,891
TOTAL REQUEST (ROUNDED)				10,891
INSTALLED EQPT-OTHER APPROPRIATIONS				(0)

10. DESCRIPTION OF PROPOSED CONSTRUCTION: The funds requested will be used to provide financing for architectural and engineering services and construction design of Missile Defense Agency (MDA) Military Construction projects.

11. REQUIREMENT: As required

REQUIREMENT: These planning and design funds are required to initiate and complete design of facilities in the MDA military construction program including unspecified minor construction projects which are anticipated to arise during FY 2014, and accomplish planning and design for future projects with a long lead-time to be included in subsequent MDA Military Construction programs.