Missile Defense Agency

Fiscal Year 2013

Program and Budget Review

Military Construction Exhibit

February 2012

MISSILE DEFENSE AGENCY
FY 2013 MILITARY CONSTRUCTION
PROGRAM AND BUDGET REVIEW SUBMITTAL
DESCRIPTIVE SUMMARIES

($ in Thousands)

Program	**Authorization**	**Appropriation**
Major Construction	183,800	183,800
MILCON Planning & Design	4,548	4,548
TOTAL MILITARY CONSTRUCTION	188,348	188,348

MISSILE DEFENSE AGENCY
FY 2013 MILITARY CONSTRUCTION
PROJECT SUMMARY
BY LOCATION

($ in Thousands)

State/Country/Installation/Project	Total Cost	This Request	New/Current Mission
Major Construction			
New York			
Fort Drum			
In-Flight Interceptor Communication System Data Terminal Complex	25,900	25,900	New
Romania			
Deveselu			
Aegis Ashore Missile Defense System Complex	157,900	157,900	New
MILCON Planning and Design	4,548	4,548	
TOTAL MILITARY CONSTRUCTION	188,348	188,348	

1. COMPONENT	FY 2013 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Feb 2012

3. INSTALLATION AND LOCATION	4. COMMAND	5. AREA CONSTR. COST INDEX
Fort Drum, New York	Missile Defense Agency	1.15

6. PERSONNEL	PERMANENT			STUDENTS			SUPPORTED			
STRENGTH:	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 FY2013	.....	25,900
E. AUTHORIZATION REQUESTED IN THE FY2014	.....	0
F. PLANNED IN NEXT THREE PROGRAM YEARS	.....	0
G. REMAINING DEFICIENCY	.....	0
H. GRAND TOTAL.	.....	25,900

8. PROJECTS REQUESTED IN THE FY2013 PROGRAM:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)	DESIGN STATUS START	DESIGN STATUS COMPLETE
1312	In-Flight Interceptor Communication System Data Terminal Complex	8,500 SF	25,900	Aug 11	Aug 12

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 2013 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Feb 2012

3. INSTALLATION AND LOCATION6	4. PROJECT TITLE
Fort Drum, New York	In-Flight Interceptor Communication System Data Terminal Complex

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
0603882C	1312	MDA 639	25,900

9. COST ESTIMATES

ITEM	U/M (M/E)	QUANTITY	UNIT COST	COST ($000)
PRIMARY FACILITIES				14,153
Communications Data Terminal Building	m2 (SF)	390.0 (4,200)	32,469(3,015)	(12,663)
Technical Support Building	m2 (SF)	372.0 (4,000)	3,242 (302)	(1,206)
Security Forces Facility	m2 (SF)	27.9 (300)	3,015 (280)	(84)
Standby Generator	LS	-	-	(200)
SUPPORTING FACILITIES				9,008
Communication Support	LM (LF)	1,951 (6,400)	218 (66.3)	(425)
Physical/Electronic Security Systems	LS	-	-	(2,189)
HVAC, Electric Service	LS	-	-	(1,887)
Water, Sewer, Gas	LS	-	-	(1,168)
Paving, Walks, Curbs and Gutters	LS	-	-	(1,206)
Other (Mob/Demob)	LS	-	-	(1,183)
Site Imp (950)/Demo (0)	LS	-	-	(950)
SUBTOTAL				23,161
CONTINGENCY (5%)				1,158
TOTAL CONTRACT COST				24,319
SIOH (6.5%)				1,581
TOTAL REQUEST				25,900
TOTAL REQUEST ROUNDED				25,900
INSTALLED EQUIPMENT-OTHER APPROP				(28,500)

10. DESCRIPTION OF PROPOSED CONSTRUCTION: Construct an In-Flight Interceptor Communication System Data Terminal (IDT) complex that consists of a reinforced concrete building in which to house IDT transmitter/receiver equipment, communication antenna with inflated protective radome, uninterruptable power supply, and a 170KW standby generator. This project also constructs a specially fabricated technical support building, security lighting, fiber optic termination point, and a security forces facility. This is an operational facility that includes shielding against the effects of High-Altitude Electro Magnetic Pulse. Supporting facilities include electric power; utilities; communication ducts; physical and electronic security systems; lighting and security fencing to meet antiterrorism/force protection requirements; site improvements and storm drainage; and pavements, roads, curbs and gutters. Access for the handicapped will be provided. Air Conditioning: estimated 9 Tons

11. REQUIRED: 8,500 SF ADEQUATE: NONE SUBSTANDARD: NONE

PROJECT: Construct an In-Flight Interceptor Communication Building (IDT) and supporting facilities at Ft. Drum, New York (New Mission)

REQUIREMENT: This project is required to provide capability enhancements designed to support Missile Defense Agency's Phased Adaptive Approach to developing an enhanced homeland defense capability by 2015. An IDT is required in the eastern portion of the U.S. to communicate with Ground Based Interceptors from Fort Greely or Vandenberg AFB later in flight as they defend the East Coast of the U.S.

CURRENT SITUATION: There are currently no data terminals in the eastern U.S. that can provide ballistic missile defense system communications to meet the Missile Defense Agency's planned enhanced homeland defense against limited attack by 2015.

1. COMPONENT	FY 2013 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Feb 2012

3. INSTALLATION AND LOCATION
Fort Drum, New York

4. PROJECT TITLE :	5. PROJECT NUMBER
In-Flight Interceptor Communication System Data Terminal Complex	MDA 639

IMPACT IF NOT PROVIDED: If this project is not provided, planned enhancements of the Missile Defense Agency's homeland missile defense capability will not be available for NORTHCOM's defensive operations in 2015. Communication with ground based interceptors launched from Ft. Greely or Vandenberg AFB will not have critical course correction communications later in flight as they defend the East Coast of the U.S.

ADDITIONAL INFORMATION: Cost estimates are based on parametric estimates and similar experience gained during the construction of communication data terminals at Fort Greely, Alaska. This project is being coordinated with the installation's physical security plans and required physical security and/or combating terrorism measures are being included. The appropriate environmental analysis and documentation is being coordinated with the host installation and will be completed before construction.

12. SUPPLEMENTAL DATA:

A. Estimated Design Data

(1) Status	
(a) Date Design Started:	Aug 2011
(b) Percent complete as of January 2012:	55%
(c) Date 35% Design Complete:	Nov 2011
(d) Date Design Complete:	Aug 2012
(e) Parametric 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	Fort Greely, AK
(3) Total Design Cost (c) = (a)+(b) or (d)+(e)	($000)
(a) Production of Plans and Specifications:	1,009
(b) All Other Design Costs:	791
(c) Total Design Costs	1,800
(d) Contract	1,540
(e) In-house	260
(4) Construction Contract Award	Jan 2013
(5) Construction Start	Feb 2013
(6) Construction Complete	Oct 2014

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

Equipment Nomenclature	Procuring Appropriation	Fiscal Year Appropriated Or Requested	Cost ($000)
Data Terminal Equipment	RDT&E	FY12/13/14/15	22,200
LHC Equipment	RDT&E	FY12/13/14	4,900
Security Equipment	RDT&E	FY13	1,400
			28,500

1. COMPONENT	FY 2013 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Feb 2012

3. INSTALLATION AND LOCATION	4. COMMAND	5. AREA CONSTR. COST INDEX
Deveselu, 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 FY2013	.....	157,900
E. AUTHORIZATION REQUESTED IN THE FY2014	.....	0
F. PLANNED IN NEXT THREE PROGRAM YEARS	.....	0
G. REMAINING DEFICIENCY	.....	0
H. GRAND TOTAL.	.....	157,900

8. PROJECTS REQUESTED IN THE FY2005 PROGRAM:

CATEGORY CODE	PROJECT TITLE	SCOPE	COST ($000)	DESIGN STATUS START	DESIGN STATUS COMPLETE
1456	Aegis Ashore Missile Defense System Complex	1 EA	157,900	Sep 11	Nov 12

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 2013 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Feb 2012

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

8. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
0603892C	1456	MDA 630	157,900

9. COST ESTIMATES

ITEM	U/M (M/E)	QUANTITY	UNIT COST	COST $(000)
PRIMARY FACILITIES				109,889
Mark-41 Launch Area Infrastructure	EA	5	179,600	(898)
HEMP Radar Deckhouse Support Building	m2 (SF)	2,703 (29,100)	8,077 (750)	(21,836)
Radar Deckhouse Foundation	m3 (CY)	268 (350)	1,588 (1214)	(425)
Special Construction	LS			(865)
Installed Equipment	LS			(4,140)
HEMP Backup Power Infrastructure	LS			(49,275)
Non-HEMP Backup Power	LS			(1,440)
Missile Storage Facility	m2 (SF)	111 (1,200)	2,863 (266)	(319)
Communications Equipment Pad	m2 (SF)	1,282 (13,800)	172 (16)	(221)
Secure Warehouse	m2 (SF)	242 (2,600)	1,550 (144)	(374)
Fire Station	m3 (SF)	585 (6,300)	3,358 (312)	(1,966)
Entry Control Facility	m2 SF	418 (4,500)	1,851 (172)	(774)
Central Security Control Facility	m2 (SF)	734 (7,900)	3,380 (314)	(2,481)
Security Fence/Gates/Lighting/ESS	LS			(8,475)
Fuel System and Storage Facilities	BL (GA)	3,170 (100,000)	1,640 (52)	(5,200)
Temporary Facilities/Mob/Demob	LS			(11,200)
SUPPORTING FACILITIES				29,295
Site Electrical	LS			(500)
Non-HEMP distribution	LS			(5,000)
Power Distribution ductbank	LS			(10,280)
Water, Sewer, Gas	LS			(2,140)
Water Supply Building and Storage	LS			(3,500)
Site Improvement/Demo	LS			(3,875)
Pavements & Walks	LS			(2,400)
Information/Communication Systems	LS			(1,380)
Anti-terrorism/Force Protection	LS			(220)
SUBTOTAL				139,184
CONTINGENCY (5.00%)				6,959
TOTAL CONTRACT COST				146,143
SIOH (6.50%)				9,499
DBA Insurance Costs				2,239
TOTAL REQUEST				157,881
TOTAL ROUNDED REQUEST				157,900
INSTALLED EQUIPMENT-OTHER APPROP				(375,335)

10. DESCRIPTION OF PROPOSED CONSTRUCTION: This project constructs an Aegis Ashore Missile Defense System site in Romania. Facilities will utilize the Aegis shipboard weapon system; launcher, radar, and command and control components. The site will consist of five Mark-41 launcher foundations, aprons and crane pads; Radar Deskhouse 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; 100,000 gallon fire water storage tank and HEMP protected suppression pumps; central security control facility; entry control facility; electronic security system infrastructure; perimeter security fencing, gates and patrol road within the restricted area boundary.

1. COMPONENT	FY 2013 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Feb 2012

3. INSTALLATION AND LOCATION
Deveselu, Romania

4. PROJECT TITLE	5. PROJECT NUMBER
Aegis Ashore Missile Defense System Complex	MDA 630

10. DESCRIPTION OF PROPOSED CONSTRUCTION (cont) : Supporting facilities include: electrical services; water; sewer; paving; walks; 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 (EMI) shielding and testing in mission support areas. The radar deckhouse and support building will receive Nuclear/Biological/Chemical protection.

Installed equipment includes raised flooring, an Uninterruptible Power Supply (UPS), redundant mechanical and electrical systems, and electronic controls to monitor building systems and the base infrastructure.

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 and 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 and provided in accordance with applicable Defense Federal Acquisition Regulations (DFARs) for utility service contracts.

1. COMPONENT	FY 2013 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Feb 2012

3. INSTALLATION AND LOCATION
Deveselu, Romania

4. PROJECT TITLE	5. PROJECT NUMBER
Aegis Ashore Missile Defense System Complex	MDA 630

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 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).

Parametric 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 15% 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 EO 12114, Environmental Effects Abroad of Major Federal Actions, will be completed prior to construction start.

*-The RDTE 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 November 2011	15%
(c) Date 35% Design Complete	Apr 2012
(d) Date Design Complete	Nov 2012
(e) Parametric Cost Estimating Used To Develop Cost	Yes
(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	Mar 2013
(5) Construction Start	Apr 2013
(6) Construction Completion	Mar 2015

1. COMPONENT	FY 2013 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Feb 2012

3. INSTALLATION AND LOCATION
Deveselu, Romania

4. PROJECT TITLE	5. PROJECT NUMBER
Aegis Ashore Missile Defense System Complex	MDA 630

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)
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
Reconstitutable Deckhouse*			
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
		RDT&E TOTAL	375,335

*-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 2013 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
MDA		Feb 2012

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	4,548

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Planning and Design	LS			4,548
ESTMATED CONTRACT COST				4,548
CONTINGENCY PERCENT (0.0%)				
SUBTOTAL				4,548
SUPERVISION, INSPECTION & OVERHEAD (0.0%)				0
TOTAL REQUEST				4,548
TOTAL REQUEST (ROUNDED)				4,548
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. REQ: 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 2013, and accomplish planning and design for future projects with a long lead-time to be included in subsequent MDA Military Construction programs.