1. COMPONENT	FY 2012 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NGA		FEB 2011

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
Ft. Belvoir, VA	Technology Center Third Floor Fit-Out

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
	131	NGA-013	$54,625

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
PRIMARY FACILITIES				
Technology Center,3rd Floor, Room 308	SM	2,741	15,067	**$41,300**
	(SF)	29,500	1,400	(41,300)
SUPPORTING FACILITIES				**$7,919**
Additional Generator #10	MW	2.5	603,000	(1,508)
SCR for Generator #10	EA	1.0	196,500	(197)
Additional Generators #11 and 12	MW	5.0	605,000	(3,025)
SCR for Generators #11 and 12	EA	2.0	202,000	(404)
SCR Upgrade for Existing Generators #1-9	EA	9.0	284,400	(2,559)
Air Sampling Fire Alarm	LS		226,000	(226)
ESTIMATED CONTRACT COST				**$49,219**
CONTINGENCY PERCENT (5.0%)				2,460
SUBTOTAL				51,689
SUPERVISION, INSPECTION & OVERHEAD (5.7%)				2,936
SUB-TOTAL				54,625
TOTAL REQUEST				$54,625

10. DESCRIPTION OF PROPOSED CONSTRUCTION: Proposed construction is to fit-out an existing unfinished room, postured to support expanding information technology including servers, uninterruptable power system, supporting electrical power and stand-by generator capability with an electrical capacity of 150 watts per square foot. Fit-out includes raised floors, air conditioning (chilled water distribution and Computer Room Air Conditioning units), power distribution including power distribution units and branch circuits, lighting, fire protection, suspended ceiling, and finishes. The room is located on the 3rd floor of the Technology Center, NGA Campus East, at the Ft. Belvoir North Area.
Supporting facilities include additional generators, selective catalytic reduction (SCR) for new and existing generators to reduce emissions, and an air sampling fire alarm system.
This project is in compliance with applicable Antiterrorism/Force Protection (AT/FP) standards.

1. COMPONENT	FY 2012 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NGA		FEB 2011

3. INSTALLATION AND LOCATION	
Ft. Belvoir, VA	
4.PROJECT TITLE	**5. PROJECT NUMBER**
Technology Center Third Floor Fit-Out	NGA-013

11. REQUIREMENT: 59,000 SF ADEQUATE: 29,500 SF SUBSTANDARD: 29,500 SF

PROJECT: Fit-out Room 308 of the third floor of the Technology Center, NGA Campus East, Fort Belvoir North Area, for information technology equipment, including servers.

REQUIREMENT: This project will allow NGA to meet the needs of expanding mission requirements. A recent volumetric study to analyze NGA's data storage requirements through the year 2020 projected that NGA's requirements for storage will increase by hundreds of Petabytes over the next decade. This project is part of NGA's strategy to allow for the most efficient use of IT space. It will also allow NGA to remove IT hardware housed in an interim data center.

CURRENT SITUATION:
NGA has use of an interim data center at a remote location. NGA's use of this site is temporary. NGA's mission has expanded and continues to grow. Limited IT resources prevent NGA from maximizing its effectiveness.

NGA is currently undergoing significant data storage modifications. New sensors and increases in the data storage holding times have significantly increased the need for more data storage. Long term plans project NGA with two primary storage centers: NGA Campus East (NCE) and Arnold. With the completion of this project, the Third Floor of the Technology Center at NCE will house more than 50% of the total projected 2020 requirement outlined in the volumetric study.

IMPACT IF NOT PROVIDED:
If this project is not provided, NGA will not be able to increase its data storage capacity to support the expanding information infrastructure capability demanded by the GEOINT mission of information sharing and collaboration. This project will also allow NGA to vacate the interim technology center.

12. Supplemental Data:

DESIGN STATUS:

(1)	Design start date:	2009
(2)	Percent of Design Completed as of Feb 2010:	100%
(3)	Percent of Design Completed as of Sep 2010:	100%
(4)	Type of Design Contract:	D/B/B

1. COMPONENT	FY 2012 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NGA		FEB 2011

3. INSTALLATION AND LOCATION
Ft. Belvoir , VA

4.PROJECT TITLE	5. PROJECT NUMBER
Technology Center Third Floor Fit-Out	NGA-013

Construction Start Date:	OCT 2011
Midpoint of Construction:	JUL 2012
Construction Completion Date:	APR 2013

1. COMPONENT	FY 2012 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NGA		FEB 2011

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
NGA (National Geospatial-Intelligence Agency) Arnold, MO	NGA Data Center West #1 (NDC-W1) Power and Cooling Upgrade

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
	811	NGA-021	$9,253

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
PRIMARY FACILITIES				**$5,292**
Pre Fabricated Structure	SM	88	2,300	(202)
Switchgear	EA	1	920,000	(920)
Transformers	kW	3000	90	(270)
Generators	MW	5	500,000	(2,500)
Chillers	TN	700	200,000	(1,400)
SUPPORTING FACILITIES				**$3,045**
Site Development	LS		75,000	(75)
Electrical (PDU, RPP, UPS)	LS		660,000	(660)
HVAC	LS		440,000	(440)
Plumbing	LS		350,000	(350)
Fire Protection	LS		20,000	(20)
Power Monitoring System	LS		1,500,000	(1,500)
ESTIMATED CONTRACT COST				**$8,337**
CONTINGENCY PERCENT (5%)				417
SUBTOTAL				8,754
SUPERVISION, INSPECTION & OVERHEAD (5.7%)				499
SUB-TOTAL				9,253
TOTAL REQUEST				($9,253)

10. DESCRIPTION OF PROPOSED CONSTRUCTION: Upgrade the electrical and cooling infrastructure to be capable of accommodating 50 watts/SF in NGA (National Geospatial-Intelligence Agency) Data Center West #1 (NDC-W1). Construction includes the erection of two pre-fabricated facilities to house switchgear and UPS equipment respectively. Installation of generators capable of producing 5 MW power and 700-tons of Air-Cooled packaged chillers to provide the additional power and cooling required at NDC-W1. Supporting facilities include associated electrical and plumbing work, installation of Transformers, UPS (Uninterrupted Power Supply), PDU (Power Distribution Units), CRAC (Computer Room Air Conditioners) and RPP (Remote Power Panel); site development to include a security fence; fire detection and power monitoring systems necessary to produce a complete and usable facility.

1. COMPONENT NGA	FY 2012 MILITARY CONSTRUCTION PROJECT DATA	2. DATE FEB 2011
3. INSTALLATION AND LOCATION NGA Arnold, MO		
4.PROJECT TITLE NGA Data Center West #1 (NDC-W1)Power and Cooling Upgrade		5. PROJECT NUMBER NGA-021

11. REQUIREMENT: 50 Watt/SF **ADEQUATE:** 35 Watt/SF **SUBSTANDARD:** 15 Watt/SF

PROJECT: NGA Data Center West #1 Power and Cooling Upgrade

REQUIREMENT:
A recent volumetric study to analyze NGA's data storage requirements though 2020 has been completed. This study projects NGA requirements for storage to increase by 100's of Petabytes over the next 10 years. To meet this requirement, NGA has adopted a data storage strategy which will utilize IT technical refresh to allow for the most efficient use of existing data center space. To utilize the existing data center space more efficiently NDC-W1 requires additional power and cooling to accommodate 50 Watts/SF from its current 35 Watts/SF. These upgrades will move the agency closer to its long range 2020 storage requirement while helping to ensure the short range 2014 requirement outlined in the volumetric study is met.

CURRENT SITUATION:
NGA is currently undergoing significant data storage modifications. New sensors and increases in the data storage holding times have significantly increased the need for more data storage. Long term plans project NGA with two primary storage centers: NGA Campus East (NCE) and Arnold. NCE is nearing completion and with the addition of the Third Floor Fit-Out of the Technology Center (MILCON project NGA-013 for FY12) will ultimately be home to more than 50% of the total projected 2020 requirement outlined in the volumetric study. Arnold currently has two distinct data storage centers (NDC-W1 and NDC-W2) which currently house approximately 10% of the total projected 2020 storage requirement together. This power and cooling upgrade will enable Arnold to house storage growth by 35% and help meet short range 2014 data storage requirements while building towards the 2020 requirement.

To meet the long range data storage requirement for FY2020 as outlined in the Volumetric Study, additional data storage will need to be developed for NGA. Future alternatives include: an integrated Intelligence Community Data Center (IC-DC), or arrangements for a lease agreement for commercial space.

Additional:
A cost analysis for evaluation of this project vs. additional leased commercial space was performed and determined that the MILCON NGA-021 project for infrastructure upgrades to existing data storage space was more effective.

1. COMPONENT	FY 2012 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NGA		FEB 2011

3. INSTALLATION AND LOCATION
NGA Arnold, MO

4.PROJECT TITLE	5. PROJECT NUMBER
NGA Data Center West #1 (NDC-W1) Power and Cooling Upgrade	NGA-021

11. REQUIREMENT: 50 Watt/SF ADEQUATE: 35 Watt/SF SUBSTANDARD: 15 Watt/SF

PROJECT: NGA Data Center West #1 Power and Cooling Upgrade

IMPACT IF NOT PROVIDED:
If this project is not provided, NGA will not be able to store the large amounts of data that is critical to its core mission of providing timely, relevant and accurate Geo-Spatial Intelligence (GEOINT) in support of national security. GEOINT includes imagery, imagery intelligence and geospatial information. Data storage requirement have increased at an exponential rate as technologies have evolved and industry has become digitized. NGA's data is shared across the Intelligence community and with DoD partners who are becoming increasingly reliant upon NGA and its data.

12. Supplemental Data:

DESIGN STATUS:

(1)	Design start date:	Jul 2009
(2)	Percent of Design Completed as of Dec 2010:	100%
(3)	Type of Design Contract:	D/B/B

Construction Start Date:	OCT 2011
Midpoint of Construction:	MAR 2012
Construction Completion Date:	AUG 2012