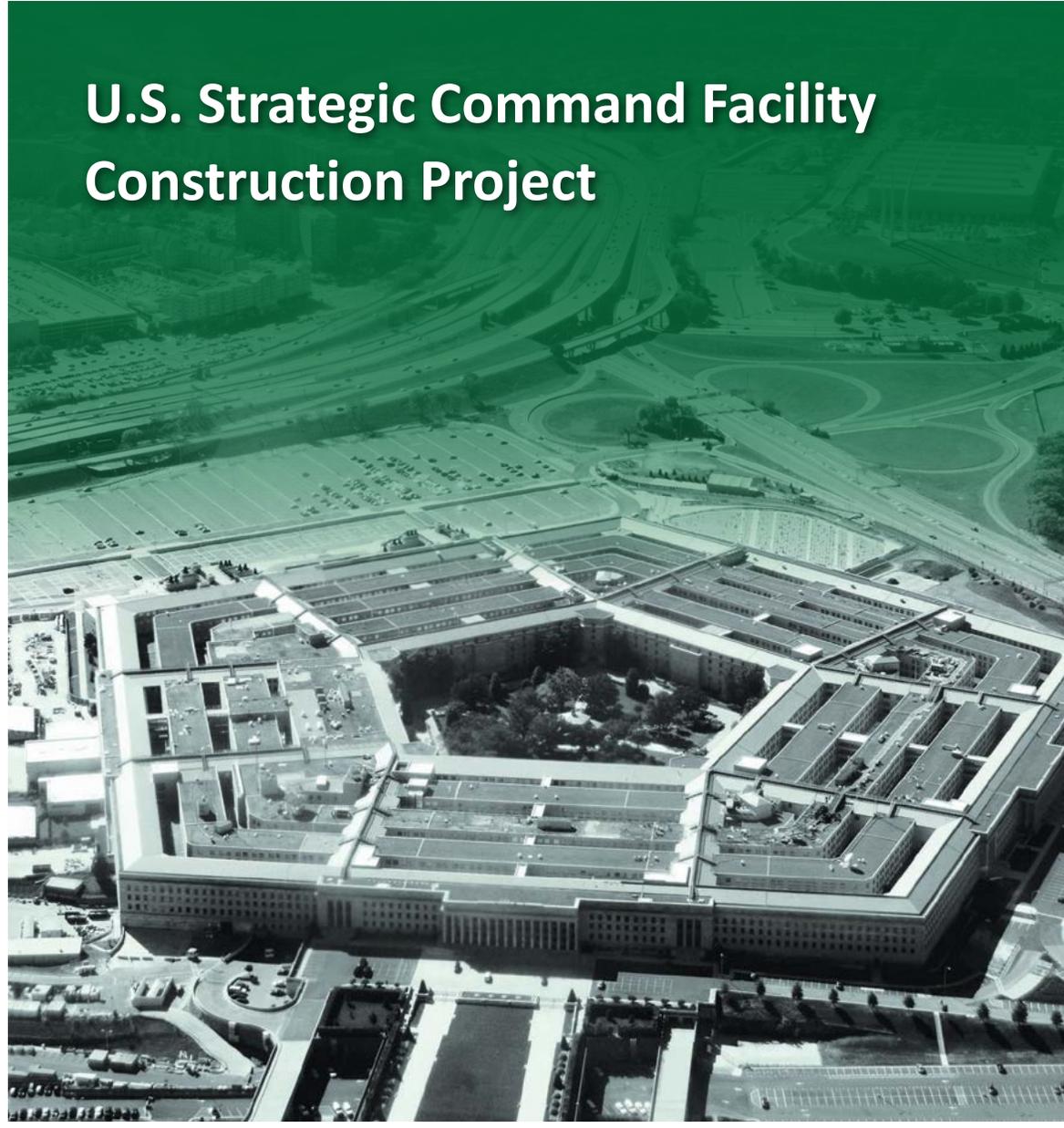


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INSPECTOR GENERAL

U.S. Department of Defense

MAY 31, 2018



U.S. Strategic Command Facility Construction Project

INTEGRITY ★ INDEPENDENCE ★ EXCELLENCE

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Results in Brief

U. S. Strategic Command Facility Construction Project

May 31, 2018

Objective

We performed this audit in response to a FY 2018 National Defense Authorization Act (NDAA) requirement for the DoD Office of Inspector General to provide a report on the schedule delays and cost increases related to the construction of the U.S. Strategic Command (USSTRATCOM) replacement facility at Offutt Air Force Base, Nebraska. We reviewed the requirements development, design-bid-build contract award processes, design suitability, and contractor performance.

Findings

To fulfill the NDAA requirement, we report on the following five elements.

First, we examine the specific reasons the DoD has used to explain the 16-month schedule delay and 10-percent cost increase. We determined that U.S. Army Corps of Engineers (USACE) Omaha District personnel experienced multiple delays and cost increases to the USSTRATCOM replacement facility because of the lack of expert involvement in the requirements development, inaccurate cost estimates, design deficiencies, contract modifications, fire, floods, mold, and challenges related to the execution of contract modifications. As of February 2018, project costs have increased 9.4 percent from the programmed amount of \$564 million to \$617.1 million, and construction completion has been delayed 29 months.

Findings (cont'd)

Second, we examine the specific actions taken to prevent further schedule delays and cost increases on this project as well as lessons learned to apply to future projects. We determined that the Office of the Assistant Secretary of Defense for Energy, Installations, and Environment (OASD[EI&E]), the Air Force Civil Engineer Center, USACE Headquarters, and USACE Omaha District have implemented or are implementing several initiatives.

These initiatives include updated guidance on roles, responsibilities, and management controls; additional training programs for cost estimators; and after-action reviews for all building projects.

Third, we identify ongoing or completed proceedings or investigations of parties responsible for the delays or cost increases. According to USACE Omaha District personnel, two separate contract claims are in litigation in the Armed Services Board of Contract Appeals.

Fourth, we describe administrative actions taken as a result of the proceedings or investigations identified in Element 3. As of March 2018, two contract claims are in litigation and have not yet been resolved; therefore, there are no results or associated administrative actions to report at this time.

Fifth, we provide a summary of changes we believe may be required for future military construction projects to prevent the problems we identified in the USSTRATCOM replacement facility project and to apply the lessons learned. We determined that improvements are necessary for future military construction projects. The recommendations below are addressed to key DoD organizations involved in the USSTRATCOM replacement facility project but should be applied as guidelines for all DoD construction projects.



Results in Brief

U. S. Strategic Command Facility Construction Project

Recommendations

We recommend that the OASD(EI&E):

- develop guidance requiring DoD organizations involved with a military construction project to draft a charter at the beginning of the project life cycle, focusing on communications and accountability in their project management plan; and
- develop guidance establishing metrics that include financial risk management parameters and triggers when higher headquarters engagement is required.

We recommend that the USSTRATCOM and USACE Commanders complete after-action reviews following completion of the construction for the USSTRATCOM replacement facility and implement the lessons learned in any ongoing or new construction projects under their oversight.

In addition, we recommend that the USSTRATCOM Commander review the administrative actions of individuals involved in the cost increases or schedule delays of the USSTRATCOM replacement facility and initiate action as appropriate.

We also recommend that the USACE Commander issue guidance to implement lessons learned from the USSTRATCOM facility construction project in other military construction projects that contain DoD-unique requirements and issue a memorandum instructing

contracting personnel involved with the USSTRATCOM facility construction project to issue yearly past performance evaluations as required by the Federal Acquisition Regulation. In addition, we recommend that the USACE Commander review the administrative actions of individuals involved in the cost increases or schedule delays of the USSTRATCOM replacement facility and initiate action as appropriate.

We recommend that the U.S. Air Force Civil Engineer Center Commander conduct program life-cycle evaluations to determine the success of the Cost Estimating Improvement Plan.

Management Comments and Our Response

OASD(EI&E), USSTRATCOM, USACE, and U.S. Air Force agreed with our findings and recommendations.

The USACE Commander also reviewed the actions of the individuals involved in the cost increases or schedule delays of the USSTRATCOM replacement facility and concluded that no individuals should be held directly accountable.

We will close the remaining recommendations upon completion and verification of the proposed corrective actions.

Please see the Recommendations Table on the next page.

Recommendations Table

Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
Assistant Secretary of Defense for Energy, Installations, and Environment	None	1.a and 1.b	None
Commander, U.S. Strategic Command	None	2.a and 2.b	None
Commanding General, U.S. Army Corps of Engineers	None	3.a, 3.b, and 3.d	3.c
Commander, U.S. Air Force Civil Engineer Center	None	4	None

Note: The following categories are used to describe agency management’s comments to individual recommendations:

- **Unresolved** – Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **Resolved** – Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **Closed** – OIG verified that the agreed upon corrective actions were implemented.





INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500

May 31, 2018

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION AND SUSTAINMENT
COMMANDER, U.S. STRATEGIC COMMAND
DIRECTOR, JOINT STAFF
COMMANDING GENERAL, U.S. ARMY CORPS OF ENGINEERS
AUDITOR GENERAL, DEPARTMENT OF THE ARMY
AUDITOR GENERAL, DEPARTMENT OF THE AIR FORCE

SUBJECT: U.S. Strategic Command Facility Construction Project (Report No. DODIG-2018-122)

We are providing this report for your information and use. We conducted this audit in accordance with generally accepted government auditing standards, but did not evaluate internal controls. We considered management comments on a draft of this report when preparing the final report. Comments from the Assistant Secretary of Defense for Energy, Installations, and Environment; the Commander, U.S. Strategic Command; the Commanding General, U.S. Army Corps of Engineers; and the U.S. Air Force Deputy Chief of Staff for Logistics, Engineering, and Force Protection conformed to the requirements of the DoD instruction 7650.03. Therefore, we do not require additional comments.

We appreciate the cooperation and assistance received during the audit. Please direct questions to me at Theresa.Hull@dodig.mil, (703) 604-9312 (DSN 664-9312).

A handwritten signature in black ink that reads "Theresa S. Hull".

Theresa S. Hull
Assistant Inspector General
Acquisition, Contracting, and Sustainment

Contents

Introduction

Objective	1
Background	2
Key Guidance Related to the USSTRATCOM Replacement Facility	3
Key DoD Organizations Involved With Construction of the USSTRATCOM Replacement Facility	6
Contracts, Modifications, Amendments, and Quality Control Measures Reviewed	10
Chronology of Significant Events	11

Finding. FY 2018 NDAA Section 2824(b) Reporting Elements and DoD OIG Responses

FY 2018 NDAA Section 2824(b) Reporting Element 1: Reasons for Cost Increases and Schedule Delays	23
DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 1	23
FY 2018 NDAA Section 2824(b) Reporting Element 2: Corrective Actions Taken to Prevent Further Schedule Delays and Cost Increases	61
DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 2	62
FY 2018 NDAA Section 2824(b) Reporting Element 3: Ongoing or Completed Proceedings or Investigations	64
DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 3	64
FY 2018 NDAA Section 2824(b) Reporting Element 4: Results of Proceedings or Investigations	65
DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 4	65
FY 2018 NDAA Section 2824(b) Reporting Element 5: Recommendations	65
DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 5	66
Recommendations, Management Comments, and Our Response	66

Appendixes

Appendix A. Scope and Methodology	72
Revised Announced Audit Objective	72
Review of Documentation and Interviews	73

Contents (cont'd)

Use of Computer-Processed Data.....	76
Use of Technical Assistance.....	76
Prior Coverage	76
Appendix B. Construction Contract Modifications Reviewed.....	77
Management Comments	
Assistant Secretary of Defense for Energy, Installations and Environment.....	89
U.S. Strategic Command.....	90
U.S. Army Corps of Engineers.....	92
U.S. Air Force.....	95
Acronyms and Abbreviations	96



Introduction

Objective

We performed this audit pursuant to Public Law 115-91, “National Defense Authorization Act for Fiscal Year 2018,” section 2824, “Report on Cost Increase and Delay Related to USSTRATCOM (U.S. Strategic Command) Command and Control Facility Project at Offutt Air Force Base.” Section 2824 requires the DoD Office of Inspector General (DoD OIG) to report on five elements relating to the military construction of the U.S. Strategic Command (USSTRATCOM) Command and Control Facility at Offutt Air Force Base, Nebraska, no later than June 10, 2018.

The following are the five elements the National Defense Authorization Act (NDAA) required the DoD OIG to include in the report.

1. Identify the specific reasons that have been used to explain the project’s 16-month schedule delay and 10-percent cost increase.
2. Describe the specific actions taken to prevent further schedule delays and cost increases on this project, as well as lessons learned that will be applied to future projects.
3. Describe any ongoing or completed proceedings or investigation into a Government employee, prime contractor, subcontractor, or non-governmental organization that may be responsible for the delay and cost increases, and the status of such proceeding or investigation.
4. If any proceedings or investigations identified resulted in final judicial or administrative action, in the case of a judicial or administrative action taken against a Government employee, the report must identify the individual’s organization, name, position within the organization, and the action taken against the individual. In the case of a judicial or administrative action taken against a prime contractor, subcontractor, or non-governmental organization, the report must identify the prime contractor, subcontractor, or non-governmental organization and the action taken against the prime contractor, subcontractor, or non-governmental organization.
5. A summary of any changes the Inspector General believes may be required to the organizational structure, project management and oversight practices, policy, or authorities of a Government organization involved in military construction projects as a result of problems identified and lessons learned from this project.

To answer the five elements, we reviewed requirements development, the design-bid-build contract award processes, design suitability, and contractor performance. See Appendix A for scope and methodology.

Background

Federal law defines military construction (MILCON) as construction, development, conversion, or extension of any kind carried out with respect to a military installation, whether to satisfy temporary or permanent requirements, or any acquisition of land or construction of a defense access road.¹

Military Construction Process

The DoD uses DD Form 1391, “FY ____ Military Construction Project Data,” to submit requirements and justification to Congress to support funding requests for construction projects that must be funded by MILCON appropriations. The Services prepare a DD Form 1391 for each proposed construction project and include the project’s cost estimate, description of proposed construction, project requirements, current facility or site conditions, the impact on operations if the project is not approved, and any useful supplemental data. MILCON projects for facilities at installations supporting a Defense or other Service mission should be coordinated with the host installation.

Public works personnel at the military installation where the construction will occur draft the DD Form 1391 for the installation commander to review and prioritize with other potential MILCON projects and then, depending on the Service, forward it to the regional commands or major commands. Once approved by the commands, the DD Form 1391 is forwarded to the Office of the Secretary of Defense (OSD), which reviews and consolidates MILCON projects across the DoD for inclusion in the defense portion of the President’s Budget. The Office of Management and Budget and the President make final revisions to the President’s Budget and submit it to Congress, which reviews the budget and authorizes and appropriates funds. Finally, the OSD allocates funds to the Military Services for congressionally approved construction projects. Once approved, if a MILCON project’s costs increase more than 25 percent of the amount appropriated, the OSD must notify Congress of the reasons and the funds proposed to finance the increase.

Programming Charrette

The programming process facilitates the transition from project planning to design and construction. The first step toward project implementation is the programming charrette, the process of documentation and coordination that matches resources to requirements.² Programming is the process of translating

¹ Section 2801, title 10, United States Code (10 U.S.C. § 2801 [2018]).

² A programming charrette is a meeting in which all stakeholders in a project attempt to resolve conflicts and map solutions.

planning decisions, guidance from the Military Departments and the OSD, and congressional oversight into a comprehensive and detailed allocation of manpower and funds.

Design Charrette

The design charrette is the process through which designers, users, and installation decision makers gather information, define and document project requirements, and collaborate to develop the project design. Normally, an expert facilitator conducts the design charrette, which should take place as close to the proposed project site as possible to maximize understanding of the site and installation. If an architectural-engineering firm designs the project, the firm can consult with an independent facilitator to conduct the charrette.

Key Guidance Related to the USSTRATCOM Replacement Facility

Key Federal and DoD guidance related to the USSTRATCOM replacement facility project is established in:

- Federal Acquisition Regulation (FAR) Part 36, “Construction and Architect-Engineer Contracts”;
- FAR Part 42, “Construction Administration and Audit Services,” Subpart 42.15, “Contractor Performance Information”;
- Defense Federal Acquisition Regulation Supplement (DFARS) Part 236, “Construction and Architect Engineer Contracts,” Subpart 236.6, “Architect-Engineer Services”;
- DoD Financial Management Regulation (FMR) 7000.14-R, volume 2B, chapter 6, “Military Construction/Family Housing Appropriations”;
- Unified Facilities Criteria;
- U.S. Army Corps of Engineers (USACE) Engineer Regulation 5-1-11, “U.S. Army Corps of Engineers Business Process,” January 12, 2007; and
- USACE Engineering and Construction Bulletins (ECBs).

Federal Acquisition Regulation Part 36

FAR part 36 establishes policies and procedures for contracting construction and architect-engineer services, both of which USACE Omaha District used for the replacement facility project. Specifically, FAR part 36 states that, for architect-engineer services, the Government must announce all contract requirements publicly and negotiate contracts for required services based on the demonstrated competence and qualifications of prospective contractors at fair and reasonable prices. Personnel from the agency contracting for these services must evaluate

each potential contractor based on factors such as professional qualifications, capacity to accomplish the work in the required time, and past performance. The agency head or a designated selection authority makes the final selection decision.

Federal Acquisition Regulation Subpart 42.15

FAR subpart 42.15 states that past performance evaluations must be prepared at least annually, as well as at the time the contracted work or order is completed. Also, paragraph 42.1502 states that past performance evaluations are required for construction contracts of \$700,000 or more and for construction contracts terminated for default regardless of contract value.³ Additionally, past performance evaluations are required for architect-engineer services contracts of \$35,000 or more, and architect-engineer contracts terminated for default regardless of contract value. These evaluations must be entered into the Contractor Performance Assessment Reporting System, the Government's reporting tool for past performance evaluations on contracts.

Defense Federal Acquisition Regulation Supplement Subpart 236.6

DFARS subpart 236.6 states that the DoD must send written notification to the congressional defense committees if the total estimated contract price for architect-engineer services or construction design exceeds \$1.5 million. However, according to OASD(EI&E), the DoD follows the congressional requirements in 10 U.S.C. 2807, and notifies Congress when architect-engineer contract services or construction designs exceed \$1 million. During the applicable notice period of 14 to 21 days, the DoD may begin developing a summary of the proposed contract action and administrative actions leading to the award.⁴ DFARS part 236—in alignment with 10 U.S.C. Sections 4540, 7212, and 9540—includes the statutory fee limitation for architect-engineer services for the preparation of designs, plans, drawings, and specifications as 6 percent of the project's estimated construction cost. This 6 percent also applies to work that was not initially included in the contract and redesign.

DoD Financial Management Regulation 7000.14-R, Volume 2B, Chapter 6

DoD FMR 7000.14-R, volume 2B, chapter 6, provides instructions related to congressional justification for MILCON appropriations and requires the DoD to complete DD Forms 1391 to justify all construction projects.⁵ In addition,

³ FAR subpart 42.15, paragraph 42.1502.

⁴ The notice period is dependent on the medium used to transmit the information—14 days if provided by an electronic medium and 21 days if provided by other than electronic medium.

⁵ DoD FMR 7000.14-R, Volume 2B, Chapter 6, Paragraph 0603, "Program and Budget Review Submission."

DoD FMR 7000.14-R states that DD Form 1391 content requirements must include primary and supporting facilities, total contract cost, project requirements, current facility or site conditions, and the impact if the project is not approved.

Unified Facilities Criteria

The Unified Facilities Criteria provides planning, design, construction, sustainment, restoration, and modernization criteria. In a May 29, 2002, memorandum, the former Under Secretary of Defense for Acquisition, Technology, and Logistics required the Military Departments, Defense agencies, and DoD field activities to follow the Unified Facilities Criteria. The Unified Facilities Criteria comprises documents that provide guidance for planning, design, construction, sustainment, restoration, and modernization. For example, Unified Facilities Criteria 3-701-01, “DoD Facilities Pricing Guide,” provides guidance for facility planning, investment, and analysis needs. Another example, Unified Facilities Criteria 4-020-01, “DoD Security Engineering Facilities Planning Manual,” provides guidance for planning DoD facilities that include requirements for security and antiterrorism.

USACE Engineer Regulation 5-1-11

USACE Engineer Regulation 5-1-11 states that, to meet mission objectives, USACE manages each project with a project management plan, which serves as a roadmap for quality project delivery. The project management plan is an agreement between USACE and the project sponsor that defines project objectives and project quality control procedures appropriate to the size, complexity, acquisition strategy, project delivery, and nature of each product.⁶ All members of the project development team, including the project sponsor, should sign the project management plan to document their commitment to the project’s success. To be an effective management and communication tool, the project management plan must be updated as conditions change.

USACE Engineering and Construction Bulletins

ECBs provide initial guidance on additional management controls for projects that USACE Civil Works and Military Programs Directors designate as “Mega-Projects.”⁷ The ECB applies to every USACE Command with a mission to support design and construction of either military or Civil Works projects, or both. For example, ECB No. 2013-18, July 29, 2013, required USACE Commands to use Building Information Modeling in all military and Civil Works projects. Also, ECB No. 2016-16, May 26, 2016, included revisions to improve the

⁶ A project sponsor is the Military Department, DoD Agency, or combatant command that originates, sponsors, and funds the construction project.

⁷ Mega-Projects are characterized by USACE as projects with attributes including very large dollar value projects and programs (over \$500 million), uniqueness, national significance, and critical nature of completion date.

integrated accountability and follow-through at all levels within USACE. Various ECBs published from 2012 to 2016 apply to the USSTRATCOM replacement facility project.

Key DoD Organizations Involved With Construction of the USSTRATCOM Replacement Facility

Several DoD organizations were involved in the planning, design, and construction of the USSTRATCOM replacement facility. These organizations include the Office of the Assistant Secretary of Defense for Energy, Installations, and Environment (OASD[EI&E]); USSTRATCOM; USACE; the Air Force Civil Engineer Center (AFCEC); and the Air Force 55th Civil Engineer Squadron (55 CES).

We interviewed personnel from these organizations, as well as personnel from the Air Force Deputy Chief of Staff for Logistics, Engineering, and Force Protection (A-4) and the Defense Threat Reduction Agency (DTRA), regarding their involvement with the construction of the USSTRATCOM replacement facility project. Specifically, we met with personnel from contracting, general counsel, quality assurance, project management, and engineering. The following sections describe the missions of the key DoD organizations and the communications forums established to provide management oversight of the USSTRATCOM replacement facility.

Office of the Assistant Secretary of Defense for Energy, Installations, and Environment

The OASD(EI&E) provides budgetary, policy, and programmatic management oversight for all DoD installations. Specifically, the OASD(EI&E)'s Office of Facilities Investment and Management office is responsible for the stewardship of DoD facilities and infrastructure on behalf of the Secretary of Defense. MILCON is one of the Office of Facilities Investment and Management's principal programs; therefore, OASD(EI&E) assisted with the construction of the USSTRATCOM replacement facility through its program oversight role.

U.S. Strategic Command

USSTRATCOM is one of the nine unified commands in the DoD. Its mission is to deter strategic attack and employ forces to guarantee the security of our Nation and our allies. USSTRATCOM Headquarters comprises nine directorates (J1 through J10): Human Capital; Intelligence; Global Operations; Logistics; Plans and

Policy; Command, Control, Communications, and Computer (C4) Systems; Joint Exercises, Training, and Assessments; Capability and Resource Integration; and the Joint Reserve Directorate.⁸

The existing USSTRATCOM complex is located on Offutt Air Force Base (AFB), Nebraska. Within the complex, USSTRATCOM's Commander exercises operational command and control of the Nation's global strategic forces from Global Operations Center. The Global Operations Center is housed in a specially designed, two-level, 14,000-square-foot (SF) reinforced concrete and steel structure, and contains the critical information management and communication systems that provide the USSTRATCOM commander an assured capability to manage forces worldwide. In time of war, the Global Operations Center can be isolated, with an emergency power supply allowing continuous operations without outside support for an extended period.

The existing USSTRATCOM complex facility, built in 1957, does not have the sensitive compartmentalized information facility (SCIF) spaces required to effectively plan and execute missions. The existing facility has experienced failures in electrical services and cooling systems, in addition to flooding and fires. USSTRATCOM's expanding space and cyberspace missions have increased the strain on the existing complex.

As the replacement facility user, USSTRATCOM is responsible for providing AFCEC a list of requirements it needs to meet its mission and ensuring that the facility provided enables the Command to execute its Presidentially assigned missions. In addition, USSTRATCOM acts as a coordinating agent between parties involved with the project.

U.S. Army Corps of Engineers

Because of its proximity to Offutt AFB, USACE Omaha District was tasked to award and manage the design and construction contracts for the USSTRATCOM replacement facility.⁹ One of USACE's missions is to deliver vital public and military engineering services. Specifically, USACE Omaha District's key military focus is the design, construction, and revitalization of facilities essential to national defense and overseas contingency operations. USACE Omaha District's construction division mission is to offer a full range of construction management services.

⁸ USSTRATCOM does not use the J9 code; therefore, there are only nine directorates.

⁹ Offutt AFB is located within USACE Omaha District's military construction boundaries, which determines the USACE District responsible for management of a MILCON project.

USACE Omaha District serves as the project manager for the USSTRATCOM replacement facility project and is responsible for MILCON design and construction agent functions, including:

- establishing a budget and schedule for the project;
- soliciting, evaluating proposals, and awarding contracts for architect-engineering services and construction;
- performing construction contract oversight, including quality assurance and site safety;
- transferring of real property upon completion; and
- decommissioning and demolition of existing structures.

Air Force Civil Engineer Center

AFCEC personnel are involved with the design and construction of the USSTRATCOM replacement facility because the facility is located on an AFB.¹⁰ AFCEC is assigned to the Air Force Materiel Command and attached to the Air Force Installation and Mission Support Center. AFCEC missions include facility investment planning, design and construction, operations support, real property management, energy support, environmental compliance and restoration, and audit assertions, acquisition, and program management.

As the Executive Agent on the project, AFCEC personnel are responsible for providing USACE with project requirements related to funding, scope, quality, schedule, and criteria. AFCEC personnel provide approval and direction to USACE on all change proposals and change requests on the project. In addition, AFCEC is responsible for providing funding to USACE at initial contract award and incrementally in subsequent fiscal years as appropriated by Congress.

Air Force 55 Civil Engineering Squadron

The 55 CES personnel at Offutt AFB are involved with the design and construction of the USSTRATCOM replacement facility because the new facility is located on Offutt AFB. As host to USSTRATCOM, 55 CES personnel were responsible for submitting the DD Form 1391 for the USSTRATCOM replacement facility. The 55 CES personnel relied on USSTRATCOM to identify the requirements for the replacement facility and continued to work with them throughout the programming process. The 55 CES manages \$50 million in support of 10 million SF of facilities dispersed over 4,027 acres.

¹⁰ On October 1, 2012, Air Force officials merged the Air Force Center for Engineering and the Environment and the Air Force Real Property Agency with the Air Force Civil Engineer Support Agency and renamed the organization AFCEC.

USSTRATCOM MILCON Project Communications Forums

USACE Omaha District, AFCEC, and USSTRATCOM officials established a number of communication forums for the project management team to maintain an open dialogue for contract compliance, change management, and ensure that the replacement facility met the USSTRATCOM mission. The project management team provides the primary level of management and review throughout the life cycle of the project and includes members of the Senior Advisory Group and the Senior Executive Review Group. In addition, officials established a Change Order Management Board with representatives from each organization to manage contract modifications resulting from change orders. According to USSTRATCOM's project management plan, the primary objective for all project participants is to provide a quality facility on schedule, within budget, and aligned with mission requirements.

Senior Advisory Group

The Senior Advisory Group meets monthly (or as determined by its members) and comprises representatives from each of the key entities involved in the project. The Senior Advisory Group meetings serve as a forum for senior (O6 or GS-15) leadership to discuss and resolve project issues that could adversely impact project execution.

Senior Executive Review Group

The Senior Executive Review Group is a higher-level (Senior Executive Service, Flag Officer, or General Officer) meeting of general officer representatives from all key entities on the project. The Senior Executive Review Group's objective is to resolve problems forwarded by the Senior Advisory Group to prevent any adverse impact to the project. In addition, the Senior Executive Review Group holds formal meetings intended to focus on large overarching issues and not day-to-day project details.

Change Request Review Boards

Representatives from USACE Omaha District, AFCEC, and USSTRATCOM conduct weekly Change Request Review Board meetings as required by the USSTRATCOM project management plan to discuss, prioritize, coordinate, and track change requests to ensure timely execution with the project delivery schedule and budget. The weekly meeting's purpose is to ensure proactive and routine communications among all members.

Contracts, Modifications, Amendments, and Quality Control Measures Reviewed

We reviewed the contracts USACE Omaha District contracting personnel awarded for the design and the construction of the USSTRATCOM replacement facility. Contracting personnel awarded the design contract on October 16, 2009, for \$3.1 million.¹¹ Contracting personnel awarded the construction contract on August 16, 2012, for \$524.4 million.¹² USACE Omaha District contracting personnel amended the solicitation for the construction contract 29 times before awarding the contract. We reviewed all 29 amendments to the solicitation.

Our query to the Federal Procurement Data System–Next Generation user account on January 26, 2018, identified that USACE Omaha District contracting personnel awarded 1,054 contracting actions, valued at \$604.5 million, to the construction contract.¹³ The contracting actions included both mandatory and user requested changes to meet emerging warfighter mission requirements. To develop our sample, we excluded modifications with a base value including exercised options of less than \$150,000, resulting in a sample of 77 modifications. USACE Omaha District contracting personnel provided us with these modifications, as well as additional modifications associated with the 77 modifications in the sample. We also reviewed modifications related to change in period of performance and the recovery of contingency funds. In total, we reviewed 184 contracting actions, valued at \$510.4 million. Of the 184 contracting actions 173 were MILCON modifications, 6 were incremental funding actions, 3 were non-MILCON modifications, and 2 modifications included both MILCON and non-MILCON. See Appendix B for a list of the contracting actions we reviewed.

We reviewed USACE Omaha District quality assurance and quality control reports from various levels. We reviewed 244 daily quality assurance and quality control reports issued by both the contractor and USACE Omaha District between September 1, 2017, and December 31, 2017. We reviewed each daily report for completeness and accuracy.

We also reviewed four quality assurance and quality control daily reports outside of the 4-month sample for dates on which specific significant events occurred, as well as 123 Level 1 inspection logs.¹⁴

¹¹ Contract W9128F-10-C-0001. As of March 2018, \$44.7 million had been obligated on the design contract.

¹² Contract W9128F-12-C-0023. The basic contract award plus the USACE fee and contingency equals the programmed amount of \$564.4 million.

¹³ The \$604.5 million includes both the base contract value and modifications totaling \$80.1 million as of January 26, 2018.

¹⁴ “Level 1” refers to the first floor of the facility.

Chronology of Significant Events

Table 1 provides a chronology of significant events related to the design and construction of the USSTRATCOM replacement facility. While this table does not contain every event, it provides a general timeline of key events relevant to the audit.

Table 1. Key Facility Timeline and Events

Date	Events
2007	
July 25, 2007	DTRA conducted a Base Survivability Assessment and found numerous single points of failure in the existing USSTRATCOM complex infrastructure.
December 14, 2007	The 55 Contracting Squadron, issued contract FA4600-05-D-0003, delivery order 0011, to an architect-engineering contractor (identified as Contractor 1 throughout the report) to obtain support for engineering data, analysis, and cost estimates relating to a USSTRATCOM replacement facility.
2008	
January 5, 2008	General Kevin P. Chilton, then-USSTRATCOM Commander, initiated the development of requirements for a new USSTRATCOM Command and Control Facility.
January 2008	USSTRATCOM hired Contractor 1 to conduct a Business Case Analysis (BCA) and prepare a Customer Concept Document (CCD). The CCD served as the data source for the DD Form 1391 requesting approval of the MILCON project.
February 2008	USSTRATCOM initiated the BCA and developed the CCD. The options considered were renovation of the existing facility, phased construction of smaller facilities over a period of time, or new construction of a single large facility.
June / July 2008	Contractor 1 completed the CCD, which identified the initial scope (997,000 SF) and estimated project costs at \$453 million.
October 2008	Congress appropriated \$10 million for Plan and Design of the USSTRATCOM replacement facility.
December 2008	AFCEC issued Design Instruction 1 to the USACE Omaha District and initiated selection of an architect-engineer.
2009	
May 8, 2009	USACE Omaha District personnel selected the designer of record for the USSTRATCOM replacement facility, and the negotiations for design services began. (The design contractor is identified as Contractor 2 throughout the report.)
June 12, 2009	USSTRATCOM coordinated with the U.S. Army Information Systems and Engineering Command for the replacement facility's Information Technology (IT) requirements.

Date	Events
July 2009	The Air Force coordinated with USACE Omaha District to validate cost estimates of alternatives considered (renovation, phased construction, or new construction).
July 16, 2009	Contractor 2's subcontractor completed the CCD Validation Study, which was conducted to validate assumptions and costs from the CCD.
September 11, 2009	USSTRATCOM J4 briefed the replacement facility requirements to Air Force leadership and congressional staffers.
October 2009	The Air Force increased the Plan and Design funding by \$23 million (FY 2010 budget approved).
October 16, 2009	USACE Omaha District awarded the design contract to Contractor 2 for \$3.1 million.
October 26-30, 2009	USACE Omaha District and Contractor 2 conducted the design charrette with USSTRATCOM personnel.
November 6, 2009	The U.S. Air Force and other project stakeholders completed the programming charrette, which determined the facility would be 1,085,748 SF with a working estimate of \$560 million.
November 23, 2009	USSTRATCOM officials requested the Army Information Systems and Engineering Command to be responsible for the IT systems design.
December 11, 2009	USACE Omaha District, Contractor 2, and USSTRATCOM personnel completed the design charrette report based on meetings conducted from October 26 to October 30, 2009. The report documented the initial direction provided for mechanical systems, electrical systems, fire protection, personnel layouts, and a working estimate of \$562 million.
2010	
February 2010	The Air Force included the USSTRATCOM replacement facility in the Air Force FY 2011 President's Budget (FYs 2012 to 2014 for \$564 million).
April 16, 2010	Contractor 2 submitted the early preliminary (35 percent design completion) design documents for review. Contractor 2 estimated the project would cost \$641 million while the Government estimate was \$666 million.
April 30, 2010	Contractor 2's subcontractor completed an independent estimate using the early preliminary design review documents. The independent estimate validation provided a third-party check of the estimates compiled by Contractor 2 and USACE Omaha District.
April 2010	USSTRATCOM received the Army Information Systems and Engineering Command IT Facility Design Criteria draft.
May 17-21, 2010	USACE Omaha District and other stakeholders conducted the 35 percent design review.
June 2010	The USSTRATCOM Deputy Commander introduced the Space and Naval Warfare (SPAWAR) Systems Command to the USSTRATCOM project to conduct a power suitability study.
September 2010	The USSTRATCOM replacement facility was included in the Air Force FY 2012 program objective memorandum for \$564 million.

Date	Events
October 2010	USACE Omaha District and other stakeholders conducted the 60 percent design review.
October 15, 2010	Interim Design Completion (60 percent design completion). At the interim stage of completion, the Contractor 2 and Government estimates were comparable. Contractor 2's estimate was \$576 million, and the Government's was \$570 million. To reduce construction costs, Contractor 2 eliminated the golf course, revised demolition methodology, and removed two cooling towers. USACE personnel noticed that Contractor 2 did not properly format its cost estimate according to the USACE Omaha District cost estimating guidance; however, USACE Omaha District did not take action to correct Contractor 2's estimate and project design continued.
December 15, 2010	The Army Information Systems and Engineering Command released the Initial Facility Design Criteria.
December 20, 2010	The underground water main next to the existing USSTRATCOM complex broke and water burst through a wall in the basement area, flooding key server rooms and causing a building-wide power outage. This incident increased the urgency for the USSTRATCOM replacement facility.
2011	
January 15, 2011	USSTRATCOM Command relieved the Army Information Systems and Engineering Command of IT responsibility and established SPAWAR Systems Center Pacific as the IT Designer of Record.
January 26, 2011	General Chilton, then-USSTRATCOM Commander, established the Program Management Office and appointed the Program Management Officer. The Program Management Office achieved full staffing by May 1, 2011.
February 2011	The USSTRATCOM replacement facility was included in the FY 2012 President's Budget (\$564 million, Increment 1 = \$150 million).
March 24, 2011	Final Design Completion (95 percent design completion). At the final design completion, the Contractor 2 and Government estimates were both \$551 million. The final design estimate had similar issues to the Interim Design Completion estimate and was not developed or formatted in accordance with USACE cost estimating guidance. USACE Omaha District personnel subsequently determined that omissions in this estimate should have been an indication of excessive project cost and prompted further adjustment to the project scope.
April 5, 2011	The USSTRATCOM project management team concurred with the project management plan's execution strategy.
August 2, 2011	USACE Omaha District contracting personnel issued Request for Proposal Solicitation W9128F-11-R-0023 for the construction of the USSTRATCOM replacement facility. USACE Omaha District personnel advertised the project as a fully designed, one-step best-value analysis, using technical and price evaluation factors. The working estimate was \$547 million (base bid) and \$560 million (with options).

Date	Events
November 15, 2011	<ul style="list-style-type: none"> • USACE Omaha District received the Government estimates for amendments 1 through 11. The Government estimate including the total basic and total options, was \$538.3 million. • Four potential contractors submitted proposals that were about \$200 million above the Government estimate—the lowest proposal contained a \$660 million base bid and \$728 million with options. • USACE Omaha District developed three courses of action to award the construction contract: <ol style="list-style-type: none"> 1. Redesign the facility within \$564 million by delaying award 15 months and pushing full operational capability 2 years. 2. Award project within \$564 million by reducing scope through post-proposal receipt amendments, expediting award to maintain construction schedule, and identifying post-award scope reductions. 3. Pursue additional funds to maintain full scope. • USACE recommended the second course of action and USSTRATCOM concurred.
December 31, 2011	Congress approved the FY 2012 National Defense Authorization Act (NDAA), signifying approval to construct the USSTRATCOM replacement facility at the \$564 million requested amount.
2012	
February 15, 2012	According to USSTRATCOM personnel, USACE Omaha District personnel informed the USSTRATCOM Project Manager that all proposals were about \$200 million over the Government estimate. USACE Omaha District, Contractor 2, and USSTRATCOM began reducing the scope of the USSTRATCOM replacement facility.
March 13, 2012	Amendment 13 eliminated the fourth floor of the North Bar, lowered the roof and penthouse one level.
April 30, 2012	After amendment 20, USACE Omaha District personnel revised the Government's estimate to \$562.7 million, including the basic and total options.
May 9, 2012	Amendment 21 eliminated three areas of vertical bays (Areas A3, A4, and A5). The amendment reduced the building by about 68,100 SF by shifting the bays inward to form a continuous structure. The amendment also eliminated work associated with landscaping and concrete asphalt surfacing in the parking areas and made the Visitor Control Center an option on the contract.

Date	Events
June 28, 2012	Air Force leadership determined that the USSTRATCOM replacement facility was an awardable project with moderate risk. However, Senator John McCain objected to certain scope reductions and requested that the Air Force withhold authority to award. Senator McCain sent the Honorable Michael B. Donley, then-Secretary of the Air Force, a letter expressing his concerns about the potential cost overruns in the design and construction of the USSTRATCOM replacement facility and requesting that the Secretary withhold any action to award the construction contract until USSTRATCOM completed a requirements review. Following receipt of the letter, the Secretary decided not to award the construction contract and to have USSTRATCOM perform a requirements review.
June 29, 2012	Because of congressional concerns, the Air Force withdrew the authority to award the contract.
July 2, 2012	The Air Force met with Senator McCain and the U.S. Senate Committee on Armed Services (SASC) Professional Staff Members to discuss personnel authorizations, parking requirements, and other scope reductions.
July 13, 2012	Senators Ben Nelson and Michael Johanns (Nebraska Delegation) sent letters to the Secretary and General Tod D. Wolters, Director of Legislative Liaison Office of the Air Force, urging the Secretary to expedite the contract award.
July 16, 2012	Air Force Headquarters' then-Deputy Air Force Civil Engineer, Mr. Mark Correll, briefed the Secretary on the developed option to re-scope the USSTRATCOM replacement facility. He also discussed a July 13, 2012, letter from Senator McCain, advocating for re-scoping of the facility to include all previously proposed bid options, as well as a full 5-percent contingency in the base bid.
July 25, 2012	Amendment 27 eliminated one section of bays and reduced the scope of the Visitor Control Center. The amendment removed all flooring, structure, walls, doors, partitions, ceilings, lighting, chilled beams and roofing in the bays outlined by column lines A22-A23/AF-AJ. The amendment reduced the scope of the building by about 23,749 SF by removing these bays and shifting the bays located outside of these lines inward to form a continuous structure. The amendment also removed the installation and procurement of two diesel generators from the contract, and added back in (but reduced) the scope of the Visitor Control Center, parking lots, and landscaping.
August 9, 2012	Mr. Correll e-mailed the Secretary a summary of his August 9, 2012, teleconference with the SASC. According to Mr. Correll, the meeting focused on the USSTRATCOM replacement facility. The SASC representative expressed Senator McCain's continued concerns that the project could exceed the programmed amount and sought rationale for Senator McCain to agree to proceed. Mr. Correll provided the SASC representative with the updates and the SASC representative provided the updated information to Senator McCain following the meeting to resolve the Senator's concerns.

Date	Events
August 14, 2012	<ul style="list-style-type: none"> • Mr. Correll sent an e-mail to Mr. Lloyd Caldwell, Chief of Programs Integration Division, USACE Headquarters, confirming that Senator McCain would not object to the award of the contract. • The Chief of Programs Integration Division, USACE Headquarters, sent an e-mail to Mr. Correll stating that USACE Omaha District would adopt a high-risk approach to award the project—an approach based on the expectation to reduce the scope after contract award to obtain better savings than the market offered before award. • The Chief of Programs Integration Division, USACE Headquarters, sent an e-mail to Mr. Correll advising the USACE Omaha District team to proceed with the award and to permit the award as scheduled for August 16, 2012. In addition, the Chief of Programs Integration Division, USACE Headquarters, stated that he was doing so with the understanding that all parties were aware of the risk with this approach. • Chief of Programs Integration Division, USACE Headquarters, sent an e-mail to USACE Northwestern Division, stating that USACE Headquarters concurred with the award and that USACE Omaha District should proceed with the award.
August 16, 2012	USACE Omaha District Contracting Officer awarded the construction project for \$524.4 million (the construction contractor is identified as Contractor 3 throughout the report). The Chief of Programs Integration Division, USACE Headquarters, sent an e-mail to Mr. Correll stating that he recognized the risk and would work closely with Mr. Correll and his team to carefully oversee the project as it progressed.
August 29, 2012	USACE Omaha District contracting personnel issued a contract modification directing Contractor 2 to revise the layout contract drawings within 45 days from the notice to proceed for the construction phase, which was scheduled to be issued on September 11, 2012.
September 10, 2012	USACE Omaha District issued a notice to proceed to Contractor 3 and the Program Management Office Security stood up to take positive control of the site for certification purposes.
October 12, 2012	USSTRATCOM officials held a ceremonial groundbreaking day.
November 1, 2012	USSTRATCOM gave SPAWAR the requirement to design the IT cabling.
2013	
February 7, 2013	USACE Omaha District cost estimators completed a cost estimating after-action review.
April 26, 2013	USACE Omaha District personnel hosted the programming and cost estimating after-action review.
May 20, 2013	The Air Force Space Command sent a team to coordinate the requirements for the IT cabling.

Date	Events
May 26, 2013	USACE Omaha District completed the programming and estimating after-action review report based on the April 26, 2013, meeting.
July 15, 2013	The Permanent Earth Retention System (PERS) wall did not seal properly and resulted in a 3-month delay .
2014	
January 31, 2014	USACE Omaha District contracting officials issued modification P00013 to remove the Telecommunications Closet Mezzanine Structure and equipment from the construction contract. USSTRATCOM officials expected the modification to save \$6 million, but it only saved \$1.2 million .
May 15, 2014	The first Below Threshold Reprogramming was approved for \$1.8 million in MILCON funds . According to DoD FMR volume 3, chapter 7, reprogramming not exceeding a threshold of \$2 million can be completed without congressional approval.
August 14, 2014	Congress approved the first Above Threshold Reprogramming (ATR) for \$35 million in MILCON funds .
2015	
January 13, 2015	USACE Omaha District filed a CPARS report covering Contractor 3's period of performance from August 16, 2013, through August 15, 2014.
July 15, 2015	The Air Force Space Command began installing IT cabling under a joint occupancy agreement with Contractor 3.
July 31, 2015	The new USACE Omaha District Commander and District Engineer arrived.
August 11, 2015	The Commander and District Engineer attended his first Senior Advisory Group meeting. During this meeting, the group discussed schedule delays, open modifications, contingency funds, industrial control systems, installation concerns, and parking.
August 13, 2015	USACE Omaha District filed a CPARS report covering Contractor 2's period of performance from October 17, 2011, through October 17, 2012.
August 21, 2015	Modification R40368, which related to challenges with the progressive collapse design, increased the contract value by \$675,062 and increased the period of performance by 29 days .
September 9, 2015	USACE Omaha District quality assurance inspectors discovered a Contractor 3 subcontractor installing lined ductwork that contained mold.
September 11, 2015	USACE Omaha District personnel required Contractor 3 to stop work on the installation of all lined ductwork until the completion of a mold investigation and remediation plan.
September 15, 2015	The Commander and District Engineer disclosed the mold discovery to the Senior Advisory Group and ordered Contractor 3 to provide an inspection and testing plan no later than October 9, 2015. The Commander and District Engineer also instituted twice-weekly mold updates. Over 10,000 of 66,000 linear feet of ductwork had to be remanufactured and replaced, resulting in an 8-month delay .

Date	Events
October 28, 2015	USACE Omaha District quality assurance personnel and Contractor 3 quality control personnel inspected lined ductwork stored in trailers onsite and found what appeared to be mold on the ductwork.
October 30, 2015	The Commander and District Engineer conducted meetings with USACE Omaha District personnel and Contractor 3 leadership to resolve the mold issue, and directed mold testing to continue for the duration of the contract. The Commander and District Engineer briefed the Senior Executive Review Group about the mold issue and confirmed that the mold tests results were positive.
November 3, 2015	Modification R50368 for Slab on Deck Progressive Collapse Reinforcement (Final) increased the contract value by \$1.7 million and increased the period of performance by 30 days . The total increase for the R00368 modification series added \$4.8 million to the contract value and 59 days to the period of performance.
November 5, 2015	Modification R00218 unilaterally increased the contract value by \$357,490 and increased the period of performance by 47 days .
November 10, 2015	USACE Omaha District personnel issued Serial Letter No. C-0711 requiring Contractor 3 to provide notice to the Government before moving or removing any of the ductwork stored in the temporary trailers from the construction site.
December 8, 2015	The Commander and District Engineer provided the House Armed Services Committee and SASC staff a mold update and a summary of the joint USACE Headquarters and Air Force Headquarters briefing on significant delays related to mold in ductwork.
2016	
March 2016	USACE quality assurance personnel discovered more mold in the USSTRATCOM replacement facility. The Commander and District Engineer ordered inspection of all ductwork.
March 3, 2016	The Commander and District Engineer initiated interim contractor ratings to document the performance of the contractor.
March 24, 2016	The Commander and District Engineer required 100-percent quality assurance and quality control on all lined ductwork before installation. Contractor 3 continued its 100-percent inspection. The Commander and District Engineer also announced the agreement to compress the IT installation schedule to 12 months.
May 21, 2016	USACE quality assurance personnel required 100-percent re-inspection of all installed Heating Ventilation and Air Conditioning ductwork after a collapse occurred because of faulty hanger installation. This resulted in a 2-month delay .
May 30, 2016	The High-Altitude Electromagnetic Pulse (HEMP) filters failed at a high rate during inspection and the Commander and District Engineer requested that Contractor 3 submit a correction plan by June 13, 2016.
June 7, 2016	Problems with battery configuration, voltage drop, and insufficient cable tray caused the delay of the Technical Control Facility. The Commander and District Engineer briefed the Executive Program Review Board (EPRB) on the HEMP Filter Testing plan submitted on May 30, 2016. (USSTRATCOM requested this supplemental meeting).

Date	Events
June 22, 2016	The Commander and District Engineer attended the Senior Executive Review Group meeting. The Uninterrupted Power Supply system for the Technical Control Facility was delayed by multiple, interrelated conflicts caused by design changes and unsatisfactory design submittals.
August 16, 2016	<p>The Commander and District Engineer provided USSTRATCOM leadership with a brief that covered the:</p> <ul style="list-style-type: none"> • updated status of the Technical Control Facility, and • recent discovery that installed ductwork anchors or anchoring methods did not meet the International Building Code.
August 29, 2016	The Commander and District Engineer attended the Senior Executive Review Group meeting, which focused on evaluating full operational capability, assessing the contingency spend rate, and deciding whether or not to seek an additional above threshold reprogramming.
September 12, 2016	This was the original construction contractual completion date.
October 2016	Contractor 3 submitted a request for equitable adjustment for \$45 million related to the lined ductwork mold issue. USACE Omaha District and the Air Force agreed that the claim had no merit.
October 18, 2016	At the EPRB, the Commander and District Engineer briefed “no change” to the full operational capability date of May 31, 2019, to include schedules and personnel in place to begin the IT installation on June 1, 2017. The Commander and District Engineer informed the EPRB about Contractor 3’s request for equitable adjustment for \$45 million. USACE Omaha District’s position was that the request for equitable adjustment had no merit. Officials at Air Force Headquarters determined that USSTRATCOM would be the delegated Approval Officer authority for industrial control systems.
November 9, 2016	Modification R00658 provided a 332-day extension for the period of performance for the re-structuring of Phase 4 and 5 requirements.
December 5, 2016	At the EPRB, the Commander and District Engineer briefed on funds status including the current contingency balance was only enough to cover 12 months at current spending rate, and cost risk to project primarily attributable to current and pending contractor claims. He also stated that the focus remained on ductwork installation and hiring supplemental personnel to complete work.
December 20, 2016	USACE Omaha District filed a CPARS report covering Contractor 2’s period of performance from October 17, 2013, through October 17, 2014.
2017	
January 11, 2017	At the EPRB, the Commander and District Engineer briefed that the number of skilled laborers on site had increased (previously an area of concern).
February 14, 2017	At the EPRB, the Commander and District Engineer briefed that the project reached the decision point on whether or not to request an ATR. The IT Critical Task tracker was implemented. The Uninterruptible Power Supply system programming was untested. The new project completion date was December 20, 2017, with full operational capability estimated for May 31, 2019.

Date	Events
March 3, 2017	The Senior Executive Review Group meeting considered the options for a second ATR action. The recommendation from that meeting was to request a \$16.1 million ATR to cover costs to complete modifications.
March 15, 2017	The SPAWAR Systems Command entered the USSTRATCOM replacement facility to begin installing Data Centers and Telecommunication Closets.
April 18, 2017	At the EPRB, the Commander and District Engineer briefed the contingency balance was \$6.8 million. AFCEC sent a \$16.1 million ATR funding request to Air Force Headquarters to cover the cost to complete construction.
April 20, 2017	The USSTRATCOM replacement facility suffered fire damage in lower Level 2, Area A-2-3.
June 5, 2017	The cooling tower and loading dock flooded because of a faulty valve. The valve was removed for evaluation.
June 20, 2017	At the EPRB, the Commander and District Engineer briefed that there was adequate cooling and conditional power on June 1, 2017, allowing IT installation to begin on time.
June 26, 2017	The Under Secretary of Defense (Comptroller)/Chief Financial Officer, DoD, signed and submitted the second ATR action to Congress.
July 18, 2017	At the EPRB, the Commander and District Engineer briefed that the Air Force approved a below threshold reprogramming of \$2 million , bringing the contingency balance to \$7.3 million . Contractor 3 submitted a Delay and Disruption claim for \$53.1 million .
July 26, 2017	The Commander and District Engineer departed USACE Omaha District.
August 2, 2017	USACE Omaha District contracting personnel and Contractor 2 entered into an agreement to resolve potential claims that each had against the other. The parties entered into the agreement to avoid delays and costs that may have resulted from litigation.
August 15, 2017	At the EPRB, a settlement of large modifications and pending disputes was expected to push the contingency below \$0 by mid-October 2017. The cost growth was \$16.1 million and the schedule growth was a 16-month delay .
August 23, 2017	A second ATR was approved by the SASC and House Armed Services Committees for \$14.1 million + \$2 million in Below Threshold Reprogramming in MILCON funds.
October 2017	Contractor 3's claims for mold, delay, and disruption remained unresolved. The Government had rejected the mold claim and was evaluating Contractor 3's appeal.
November 15, 2017	USACE Omaha District filed a CPARS report covering Contractor 2's period of performance from October 21, 2014, through October 20, 2015.
December 5, 2017	Modification R10692 revised the final building completion date from October 30, 2017, to January 24, 2018, extending the period of performance by 85 days and increasing the contract value by \$91,093 to install missing return air ducts.

Date	Events
December 6, 2017	Air Force and USACE personnel briefed congressional staff on the USSTRATCOM replacement facility's mission and the timeline for the planning, programming, and design phases of the project. Air Force and USACE personnel also briefed congressional staff on the ATRs, the overall schedule delays, and lessons learned.
2018	
January 10, 2018	Modification R10776 revised the project scope for duct detectors, increasing the contract value by \$3 million and the period of performance by 75 days .
January 11, 2018	USACE Omaha District filed a CPARS report covering Contractor 2's period of performance covering October 21, 2015, through December 18, 2017.
January 24, 2018	At the USSTRATCOM replacement facility, a contractor error caused a pipe to discharge water into the IT equipment room.
January 26, 2018	USACE Omaha District personnel conducted a site investigation for the water line release and prepared a report that included the description, causes, and recommended corrective actions to prevent future occurrences.

Finding

FY 2018 NDAA Section 2824(b) Reporting Elements and DoD OIG Responses

We conducted this audit pursuant to the FY 2018 NDAA requirement for the DoD OIG to provide a report on the schedule delays and cost increases related to the construction of the USSTRATCOM replacement facility at Offutt AFB. Specifically, Congress required the DoD OIG report to include the following five elements.

1. Identify the specific reasons that have been used to explain the 16-month schedule delay and 10-percent cost increase for the project.
2. Describe the specific actions taken to prevent further schedule delays and cost increases on this project as well as lessons learned that will be applied to future projects.
3. Describe any ongoing or completed proceedings or investigation into a Government employee, prime contractor, subcontractor, or non-governmental organization that may be responsible for the delay and cost increases, and the status of such proceeding or investigation.
4. If any proceedings or investigations identified resulted in final judicial or administrative action, in the case of a judicial or administrative action taken against a Government employee, the report must identify the individual's organization, name, position within the organization, and the action taken against the individual. In the case of a judicial or administrative action taken against a prime contractor, subcontractor, or non-governmental organization, the report must identify the prime contractor, subcontractor, or non-governmental organization and the action taken against the prime contractor, subcontractor, or non-governmental organization.
5. A summary of any changes the Inspector General believes may be required to the organizational structure, project management and oversight practices, policy, or authorities of a Government organization involved in military construction projects as a result of problems identified and lessons learned from this project.

The following sections of this report address these elements in the order they appear above.

FY 2018 NDAA Section 2824(b) Reporting Element 1: Reasons for Cost Increases and Schedule Delays

In this section, we examine the specific reasons the DoD used to explain the 16-month schedule delay and 10-percent cost increase for the USSTRATCOM replacement facility project. We reviewed Government personnel's processes and decisions, from the initial decision to replace the existing USSTRATCOM complex through February 2018, when we visited the USSTRATCOM replacement facility.

First, we examine USSTRATCOM's process for developing the space and capability requirements of the new facility and how the Air Force used these requirements to develop the programmed amount sent to Congress in the Air Force Military Construction Program FY 2012 Budget Estimate. Next, we assess USACE Omaha District's development of designs for the facility, why revisions to the designs were required just before the award of the contract to construct the facility, and how changes to the construction contract after award increased the costs and delayed the construction of the facility. We also evaluate actions taken by USACE, Air Force, and USSTRATCOM personnel during the construction phase to obtain a quality replacement facility that will meet the USSTRATCOM requirements. Finally, we summarize the chain of events that led to the delays and increased costs. Within these areas, we discuss a number of events that were outside of the Government's control that contributed to the delays or cost increases in constructing the USSTRATCOM replacement facility.

DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 1

We determined that USACE Omaha District personnel continued to experience schedule delays and increased costs to the USSTRATCOM replacement facility project because of the lack of expert involvement in the requirements development, inaccurate cost estimates, design deficiencies, modifications, fire, floods, mold, and challenges related to execution of contract modifications.¹⁵ As of February 2018, the construction contract's estimated completion date is August 2, 2018, a delay of 29 months, and the total construction contract cost is \$617.1 million, a 9.4-percent increase from the original programmed amount of \$564 million.¹⁶

¹⁵ FAR Clause 52.249-10, "Default," states that the contractor should not be impacted if "the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor." We did not determine which delays were excusable under FAR Clause 52.249-10. We only present the delays as they occurred.

¹⁶ USSTRATCOM officials stated the building is not "usable" until the electronic security system is certified. As of April 2018, USSTRATCOM officials believe a usable facility with the electronic security system certification will be delivered to the Government in November 2018, an additional 3-month delay. USACE Omaha District personnel stated that the project delay should be 23 months and should not include the 6-month contract award delay.

Requirements Development and Programming

To determine the budget for the USSTRATCOM replacement facility, USSTRATCOM personnel and 55 CES (the base engineers at Offutt AFB) personnel coordinated throughout the planning and programming process. USSTRATCOM personnel determined space requirements for the new facility, such as office spaces, data centers, secured areas, and meeting rooms. USSTRATCOM and 55 CES personnel determined additional costs associated with the specialized use of the facility, including the ability to host additional personnel during peak periods; additional power, cooling, and mechanical systems to support the criticality of the USSTRATCOM mission; and protection against hostile attacks. Personnel from the 55 CES also added costs to prepare the land for the construction and improve the roadways near the USSTRATCOM replacement facility site.

USSTRATCOM personnel developed these space and capabilities requirements based on the Offutt AFB USSTRATCOM BCA Report and CCD. We reviewed both of these documents to determine whether USSTRATCOM personnel adequately developed requirements, the process involved the necessary project stakeholders, and the decisions made during the planning period contributed to the delays and cost increases for the USSTRATCOM replacement facility.

Offutt AFB USSTRATCOM Business Case Analysis Report

On December 14, 2007, the 55 Contracting Squadron awarded contract FA4600-05-D-0003, delivery order 0011, to obtain support for engineering data, analysis, and cost estimates relating to a USSTRATCOM replacement facility (identified as Contractor 1 throughout the report). The BCA, issued in April 2008, was one of the documents produced in this effort. USSTRATCOM leadership's objectives for conducting the BCA were to assess various locations to build the USSTRATCOM replacement facility, explore funding options, and obtain an estimate of the cost to build the facility.

Offutt AFB officials identified six potential locations on or near Offutt AFB and 18 weighted criteria for assessing the suitability of each of these sites for hosting the USSTRATCOM replacement facility.¹⁷ Contractor 1 conducted various surveys and studies, then applied a score to each of these sites. After completing its analysis, Contractor 1 recommended a 50-acre, on-base site as the most suitable location for the USSTRATCOM replacement facility. This site was the base golf course at the time of the BCA.

¹⁷ Contractor 1 assessed each site to determine specific environmental factors, how existing infrastructure would be able to support the replacement facility, the impact the replacement facility would have on the surrounding area, and how the then-current condition would influence construction costs and timeframes. Contractor 1 assessed the need for extraordinary retaining walls at each site as part of the BCA analysis.

Contractor 1 assessed the benefits and shortfalls of requesting MILCON funding for the project and examined other ways to obtain the facility through long-term leasing methods that would require Office of Management and Budget approval. Contractor 1 also assessed the possibility of funding portions of the facility through private donations or incentive programs for building energy-efficient buildings. Based on the analysis in the BCA, USSTRATCOM personnel decided that MILCON funding for the facility was the best course of action because it resulted in ownership of the facility rather than a leased facility owned by a private entity. Contractor 1 estimated that building the USSTRATCOM replacement facility on the golf course site would cost more than \$360 million.

We determined that the processes USSTRATCOM and Contractor 1 personnel used to identify the most suitable site for the USSTRATCOM replacement facility were reasonable based on the information they had at the time the BCA was conducted, but we did not independently verify the results of these efforts. USSTRATCOM and Contractor 1 personnel assessed each of the six sites based on the established criteria. However, USSTRATCOM leadership's subsequent decision to construct two levels of the facility underground decreased the accuracy of the BCA scoring with regard to special retention walls at the construction site. We determined that the need for special retaining walls, known as a Permanent Earth Retention System (PERS) wall, resulting from that decision caused some of the project's schedule delays and costs increases. We provide details regarding this decision in the section titled "Permanent Earth Retention System Wall Leakage Delay."

Customer Concept Document

Contractor 1 completed the CCD to develop preliminary designs, determine the space and capabilities requirements, and establish an estimate for the USSTRATCOM replacement facility that USSTRATCOM and the Air Force could use as the basis for their budget request to Congress. According to the CCD, from February through July 2008, Contractor 1 gathered information through a series of questionnaires given to 150 groups internal to the USSTRATCOM organization, interviews, and planning sessions with USSTRATCOM directorates and tenants. Contractor 1 also analyzed previous similar MILCON projects to identify lessons learned that could be incorporated into the USSTRATCOM replacement facility project. Furthermore, Contractor 1 assessed the possibility of renovating the existing facilities and determined that the costs and disruption to the mission during the renovations did not make renovating a viable option. Contractor 1 conducted the CCD concurrently with the BCA and incorporated the benefits and challenges of using the 50-acre golf course site into the analysis.

Contractor 1 presented seven design concepts to USSTRATCOM personnel and other project stakeholders, such as the Defense Intelligence Agency and the 55 CES, to determine which concepts would best meet mission needs.¹⁸ Concerns about security and the ability to navigate the facility led USSTRATCOM personnel to eliminate three of the concepts and focus on further developing the other four designs. Contractor 1 revised these four designs based on the feedback and USSTRATCOM officials ultimately decided on a preferred design after the revisions.

After gathering personnel and capability requirements from the USSTRATCOM components, Contractor 1 calculated that the USSTRATCOM replacement facility would need 997,157 SF—about 30,000 SF more than the existing USSTRATCOM complex.¹⁹ According to the CCD, Contractor 1 and USSTRATCOM personnel analyzed ways to reduce the space required by sharing administrative and meeting areas. Contractor 1 also concluded that 60 percent of the building would need to be SCIF-compliant areas and that 35 percent of the space would need to be open storage areas. They also determined the amount of space required for the special features of the building (including the Global Operations Center), the additional power requirements to operate the facility, and the increased space required to support the redundant capabilities that allow USSTRATCOM personnel to continue their critical mission when normal systems fail.

Contractor 1 estimated that the cost of the USSTRATCOM replacement facility would be approximately \$453 million using the golf course site and design scheme H, which USSTRATCOM personnel preferred because it offered large contiguous floor spaces and better security features than other designs. Contractor 1's estimate included costs for construction, site preparation, and management of the USSTRATCOM replacement facility project, but did not include design costs. Similar to the BCA, Contractor 1 conducted the CCD with the assumption that most of the facility was above ground; therefore, the costs for the building did not include the major excavation required to build the lower levels of the facility underground. Personnel from the 55 CES used the USSTRATCOM developed CCD cost estimate to develop the DD Form 1391 after making a number of adjustments for additional work that would be required near the USSTRATCOM replacement facility to address the increased traffic flow the relocation would cause.

¹⁸ The design concepts are identified as design schemes C, H, I, L, O, V, and Y, based on the shape of the footprint of the potential design.

¹⁹ Throughout this report, we use SF to quantify space requirements. We relied on source documents that reported space requirements in both SF and square meters. For consistency, we have converted all documents that used square meters to SF using a conversion of 1 square meter being equal to 10.76 SF.

We determined that the processes USSTRATCOM and Contractor 1 personnel used to identify the space and capability requirements was reasonable based on the information they had at the time the CCD was conducted, but we did not independently verify the requirements. USSTRATCOM and Contractor 1 personnel adequately gathered information on the existing facility, incorporated various construction criteria into the planning, and accessed opportunities for efficient use of space in the replacement facility.

Involvement of Other DoD Organizations in Planning

USSTRATCOM officials did not involve other DoD organizations, such as USACE or DTRA, in the initial planning for the USSTRATCOM replacement facility. USSTRATCOM officials could have benefitted by requesting that the eventual construction agent (USACE) and DTRA provide input on how to ensure the requirements would reflect the special uses of this facility and the additional force protection requirements. Although USSTRATCOM requested that DTRA personnel assess vulnerabilities in the existing USSTRATCOM infrastructure, which prompted USSTRATCOM personnel to assess the need for a replacement facility, DTRA personnel were not involved with assessing the security requirements of the replacement facility until after USSTRATCOM developed requirements and conceptual designs as part of the CCD. As a best practice, USSTRATCOM should have involved additional DoD organizations in the initial planning because of the uniqueness and critical nature of the USSTRATCOM replacement facility. USACE and DTRA personnel could have provided input early in the process that would have allowed more accurate programming of the special features of the USSTRATCOM replacement facility.

However, USSTRATCOM officials did not request DTRA's involvement until June 15, 2009—after the completion of the CCD—when USSTRATCOM requested DTRA assistance for the USSTRATCOM replacement facility designs. DTRA personnel indicated that their assessments are only recommendations and it is up to the requesting command—in this instance, USSTRATCOM—to decide what actions to implement to mitigate identified threats. Therefore, we did not review the contents of the DTRA report because any changes made based on the DTRA recommendations were ultimately at the discretion of USSTRATCOM. After considering the CCD and DTRA assessment, USSTRATCOM leadership decided to construct two entire levels of the facility underground, resulting in additional construction costs that were not included in the CCD estimate that Air Force officials used to develop the DD Form 1391. Air Force officials adjusted the estimate a number of times, but never accurately reflected the increased costs for additional site work of the facility as we discuss in the next section.

Development of the DD Form 1391

After USSTRATCOM and Contractor 1 personnel calculated that the facility would cost approximately \$453 million, they worked with Air Force officials to refine the project costs. At CCD issuance in July 2008, USSTRATCOM personnel calculated that their requirements were 997,157 SF; however, USSTRATCOM personnel increased the requirement to 1,116,410 SF by September 2, 2009, and estimated that the required budget for the project would be \$570 million. By reviewing documentation, we confirmed that a portion of the space increase occurred when the 55th Communications Squadron identified space requirements within the USSTRATCOM replacement facility in direct support of the USSTRATCOM mission. However, USSTRATCOM did not provide documentation to identify all the reasons for this increase. Personnel from the 55 CES also added project costs to demolish portions of the existing USSTRATCOM facility and improve access controls near the preferred site. Personnel from the 55 CES stated that they developed a series of four budgeting options based on the existing facilities at Offutt AFB:

- relocate the golf course and demolish a portion of the existing USSTRATCOM complex;
- do not relocate the golf course and demolish a portion of the existing USSTRATCOM complex;
- relocate the golf course but do not demolish any of the existing USSTRATCOM complex; and
- do not relocate the golf course or demolish any of the existing USSTRATCOM complex.²⁰

USSTRATCOM personnel coordinated the replacement facility project through the Air Combat Command, and ultimately to the Secretary's staff. Air Force officials included this \$564 million project (incrementally funded over 3 fiscal years) as part of their FY 2012 budget request. Air Force officials later revised their plan from three increments to four. Congress approved the \$564 million programmed amount for the facility in four increments spanning from FYs 2012 through 2015. Table 2 shows the budget request and appropriated amounts by fiscal year for the USSTRATCOM replacement facility.

²⁰ Not relocating the golf course would require Offutt AFB personnel to use the nearby public golf courses.

Table 2. USSTRATCOM Replacement Facility Budget and Appropriated Amounts (in Millions)

	Planned Air Force Budget Request	Revised Air Force Budget Request	FY Appropriated Amount	Cumulative Total of Appropriated Amount
FY 2012	\$150	\$150	\$120	\$120
FY 2013	250	161	128	248
FY 2014	164	136	136	384
FY 2015		180	180	564

Source: The DoD OIG.

Although 55 CES personnel adjusted the programmed amount included in the budget request, they stated that they did not adjust the information provided by USSTRATCOM personnel regarding the costs of the actual USSTRATCOM replacement facility. Again, USSTRATCOM should have involved additional DoD organizations in the initial planning because of the uniqueness and critical nature of the USSTRATCOM replacement facility as a best practice. Air Force officials requested a programmed amount based on cost estimates that USSTRATCOM and Contractor 1 personnel calculated without input from experts at USACE and DTRA. Consequently, USSTRATCOM and Air Force personnel developed a project budget that did not accurately reflect the site work required for the replacement facility project and USACE personnel later determined that many of the estimates were not comparable to actual costs of the project. We summarize the chain of events that led to the delays and increased costs to the USSTRATCOM replacement facility project in the Summary of Delays and Summary of Costs sections below.

Design Development and Estimating

USACE Omaha District personnel and the design contractor (identified as Contractor 2 throughout the report) inaccurately estimated the project's construction cost during the design phase of the USSTRATCOM replacement facility, resulting in an understated project cost. The USACE Omaha District contracting officer awarded the design contract for the USSTRATCOM replacement facility on October 16, 2009, for \$3.1 million. Contractor 2 initiated its design efforts by conducting a programming charrette. Following the programming charrette, Contractor 2 conducted a series of design charrettes that included personnel from USSTRATCOM's J1 through J10 directorates.

On April 26, 2013, USACE Omaha District personnel conducted an after-action review to identify what went wrong with the project management, programming, and the cost estimating processes and why the problems accurately estimating

project costs occurred. Personnel from USSTRATCOM, AFCEC, Contractor 2, and the construction contractor (identified as Contractor 3 throughout the report) participated in the after-action review. USACE Omaha District personnel included the specific details and results of the programming and design charrettes in the after-action review.

Programming Charrette

USACE Omaha District personnel described in the after-action review that, throughout the programming charrette, Contractor 2 focused on developing the size of the building and a preliminary opinion on the cost of the project. Contractor 2 interviewed USSTRATCOM personnel and toured the existing USSTRATCOM complex to determine replacement facility requirements. Contractor 2 used Air Force guidance to allocate square footage based on rank of personnel, and to allocate office, administration, and special purpose space. Contractor 2 completed the programming charrette on November 6, 2009, and determined the size of the facility should be 1,085,748 SF with a cost of \$560 million.

Design Charrettes

USACE Omaha District, Contractor 2, and USSTRATCOM personnel completed the initial design charrette document on December 11, 2009, detailing the initial direction provided for mechanical systems, electrical systems, fire protection, and personnel layouts. In addition, Contractor 2 presented USSTRATCOM personnel with three different concepts for the exterior and functional layout of the building. USSTRATCOM personnel selected a design layout with an estimate of \$562 million.

On April 16, 2010, at the 35 percent design charrette, Contractor 2 submitted early preliminary design documents with an estimated cost of \$641 million. USACE Omaha District personnel estimated the cost to be \$666 million; therefore, both estimates were over the programmed amount of \$564 million. According to USSTRATCOM personnel, Contractor 2 added additional items to the design that they had not requested, such as a museum and extra square footage. Contractor 2 and USACE Omaha District personnel held a series of meetings to reconcile the differences between their estimates. Contractor 2 also reduced the scope below the programmed scope, resulting in a working estimate below the programmed amount. An independent contractor that specializes in cost estimation performed an estimate validation of the Contractor 2 and USACE estimates and calculated an estimate of \$565 million.

On October 15, 2010, at the 60 percent design charrette, Contractor 2 estimated the project would cost \$576 million and USACE Omaha District personnel estimated the project would cost \$570 million; therefore, both estimates were still over the

programmed amount of \$560 million. To reduce the construction costs below the programmed amount, Contractor 2 took several measures, such as reducing cooling loads and eliminating the golf course replacement costs. Even though Contractor 2's estimate did not contain elements required by the USACE Omaha District cost estimating guidance, such as back-up information for USACE to validate the unit costs and cost and pricing data, USACE Omaha District officials did not reject Contractor 2's estimate at this time and the project design continued. In the after-action review, USACE Omaha District personnel acknowledged that their cost estimating personnel should have recognized that Contractor 2's estimate was not accurate enough to make a proper determination whether the estimated cost aligned with the programmed amount.

On March 24, 2011, at the 95 percent design charrette, Contractor 2 and USACE Omaha District estimates were both \$551 million; therefore, both estimates were under the programmed amount. Similar to the previous charrette, Contractor 2 did not properly develop or format its estimate in accordance with USACE's estimating guidance. In addition, Contractor 2 did not include reasonable backup information for many items to allow USACE personnel to validate the unit costs.

Complications With Project Management, Programming, and Cost Estimating Processes

In the after-action review, USACE Omaha District personnel identified problems with project management, programming, and cost estimating processes that led to inflated requirements and inaccurate cost estimates. The following are specific problem areas USACE Omaha District personnel identified in the after-action review.

- **Requirements Not Identified Before Initiation of Design.** USSTRATCOM personnel did not complete requirements documents before beginning the design process, and Contractor 2 relied on information obtained from the CCD and interviews with USSTRATCOM personnel. This resulted in requirements that could be revised throughout the course of the design efforts, but did not provide adequate information to allow Contractor 2 to design a facility specific to the unique needs of USSTRATCOM.²¹ In addition, USSTRATCOM personnel initiated the design efforts while they were still developing the facilities design criteria. In the course of developing the facilities design, the requirements changed

²¹ Requirements documents normally are developed before starting the design process, and define all facility criteria and serve as a baseline for the design team throughout the course of the design phase.

significantly, resulting in multiple revisions to the facility design.²² Lastly, USSTRATCOM personnel developed the Design Basis Threat concurrently with design development; therefore, the programming and initial design submissions did not fully capture the impacts of the Design Basis Threat.²³

- **Scope Creep.** Contractor 2 met with USSTRATCOM personnel numerous times without a USSTRATCOM or USACE Omaha District project manager present, even though USACE Omaha District personnel instructed Contractor 2 to take direction only from USACE Omaha District contracting personnel. These meetings resulted in design revisions that did not consider costs or schedule impacts. USSTRATCOM personnel disputed this claim when we met with them and USACE Omaha District personnel did not provide any documentation to support this claim other than their after-action review.
- **Improper Staffing and Incorrect Unit Prices.** Contractor 2 and its subcontractor did not staff enough people for the size of the design package and could not build from previous estimates because of the complexity of the changes in the designs. Contractor 2 and its subcontractor also used incorrect unit prices and did not understand the Government's cost-estimating software.
- **Inaccurate Estimating.** USACE Omaha District officials did not staff enough resources to develop an accurate initial estimate or review the completed estimate.
- **Poor Estimates for Scale of Building.** Numerous underestimations magnified the error in the overall cost estimate because of the size of the facility.

Complications USSTRATCOM Personnel Identified With the Planning and Design Phases of Construction

USSTRATCOM personnel identified problems they encountered during the programming and design charrettes. USSTRATCOM personnel stated that they realized they needed a Program Management Office and should have established one sooner. In December 2010, USSTRATCOM personnel met with National Geospatial-Intelligence Agency officials, who were also in the process of building a new facility, to discuss how National Geospatial-Intelligence Agency personnel handled the construction. USSTRATCOM personnel stated that during this meeting

²² The facilities design criteria identified the size requirements and power and cooling loads for all data centers and telecommunications closets, and all requirements for distribution of communications from outside the plant, through data centers and telecommunications closets, and to the workstations.

²³ Design Basis Threats provide a general description of the attributes of potential adversaries who might attempt to commit radiological sabotage, theft, or diversion against which the licensee's physical protection systems must defend with high assurance.

they identified characteristics they needed for the USSTRATCOM replacement facility Program Management Office. USSTRATCOM personnel stated that, before the Program Management Office was established, the USSTRATCOM J4 directorate created an office staffed with civilian and military members to focus on USSTRATCOM's functional requirements for the MILCON effort.²⁴ USSTRATCOM's J6 directorate established an organization to focus on the IT infrastructure for the USSTRATCOM replacement facility.²⁵ According to USSTRATCOM personnel, the Program Management Office was not fully staffed until May 2011, after the 95 percent design charrette.

USSTRATCOM personnel stated that Contractor 2 personnel added unrequested features and space to the design after the 35 percent design charrette. According to USSTRATCOM personnel, at the 35 percent design charrette, Contractor 2 was under the programmed amount and the design met USSTRATCOM's needs; however, at the 60 percent review, Contractor 2 was over the programmed amount and had added unrequested features to the design, such as a museum and additional underground square footage. USSTRATCOM personnel explained that this occurred because Contractor 2 did not understand that they could not go over the programmed amount and thought that, if they went over the programmed amount, Air Force officials could request additional funding. Following the 60 percent review, a USSTRATCOM Program Management Office official (a former USACE employee) coordinated with Contractor 2 to remove the unrequested design features to reduce costs. However, neither USACE nor USSTRATCOM personnel provided any documentation giving the USSTRATCOM Program Management Office official authority to coordinate with Contractor 2. According to the USSTRATCOM Program Management Office official, he informed Contractor 2 his role was to provide the user perspective only and he had no authority to act without the approval of AFCEC or USACE. In addition, USSTRATCOM personnel stated that during the requirements gathering phase, USSTRATCOM's J4 directorate personnel frequently met with Contractor 2 at USACE-approved meetings to review requirements. Frequently, a USACE representative was unable to attend the meetings and informed USSTRATCOM that USACE would get a brief from Contractor 2 on what occurred.

²⁴ USSTRATCOM's J4 directorate is the Logistics Directorate. The Logistics Directorate plans, coordinates, and executes joint logistics functions. It also provides capability-based readiness assessments and facilities management in support of USSTRATCOM's global mission.

²⁵ USSTRATCOM's J6 directorate is the C4 Systems Directorate. The C4 Systems Directorate coordinates, facilitates, monitors, and assesses systems, networks, and communications requirements.

Lastly, USSTRATCOM personnel did not complete an after-action review for the planning and design project to aid in future projects. According to USSTRATCOM personnel, they track items to complete, which include an after-action review. However, USSTRATCOM personnel have not finalized an after-action review and stated that they intend to perform a project closeout after-action review when the USSTRATCOM replacement facility is complete.

Amendments to the Construction Solicitation

USACE Omaha District personnel issued 18 amendments to the construction solicitation after receiving the initial proposals and before awarding the construction contract, W9128F-12-C-0023. According to the USACE Omaha District after-action review, the advertised project was a fully designed, one-step, best-value analysis, using technical and price evaluation factors, and the USSTRATCOM replacement facility was programmed for \$564 million with a scope of 1,085,748 SF. On August 2, 2011, USACE Omaha District personnel advertised the solicitation and received proposals on November 15, 2011, as required by amendments 1 through 11, which consisted of administrative changes. All of the contractor proposals were about \$200 million above the Government estimate of \$538.3 million. According to USACE Omaha District personnel's after-action review, the contractors' pricing was similar across the board for the basic contract. This supports USACE Omaha District personnel's statement in the after-action review that the Government estimate contained serious flaws, errors, and omissions in cost development.

Furthermore, USACE Omaha District personnel stated in the after-action review, that the difference between the expected and the proposed pricing led to a series of significant cost-reduction amendments to the solicitation and the need to request three additional proposals from the contractors in less than 12 months to develop an awardable project. USACE Omaha District personnel stated in the after-action review, that the major cost-reducing amendments were amendments 13, 21, and 27. Table 3 shows a comparison of Contractor 3's proposal amounts and the Government estimates for each of the amendments with significant changes in scope.

~~(FOUO)~~ Table 3. Comparison of Contractor 3's Proposal Amount and the Government Estimates for Amendments With Significant Scope Changes

Amendments	Date of Proposals & Government Estimate	Contractor 3's Proposal Amount (Basic + Options)	Government Estimate Total of Basic + Options	Description of Changes	SF Reduction
1-11	11/15/2011	[REDACTED]	\$538,308,717	Administrative changes for initial proposals.	-
12-20	4/30/2012	[REDACTED]	562,728,333	Remove 4th floor North Bar; lower the atrium roof one level; remove IT communication system; remove 2 cooling towers.	78,000 ¹
21-22	5/21/2012	[REDACTED]	599,734,900	Remove 3 vertical bays and landscaping; change parking and Visitor Control Center to options.	68,400 ²
23-29	8/3/2012	(\$524,445,324 + \$0) \$524,445,324	491,313,767	Remove 1 vertical bay; Remove 2 diesel generators; Add parking and Visitor Control Center back to basic contract with reduced scope.	22,800 ³

¹ USACE Omaha District personnel state in the after-action review, amendment 13 reduced the scope of the project by 78,000 SF.

² USACE Omaha District personnel state in the after-action review, amendment 21 reduced the scope of the project by 68,400 SF.

³ USACE Omaha District personnel state in the after-action review, amendment 27 reduced the scope of the project by 22,800 SF.

Source: The DoD OIG.

Amendments 12 through 20

~~(FOUO)~~ In the after-action review, USACE Omaha District personnel identified that amendment 13 was a significant cost-reducing amendment because it eliminated the fourth floor on the north side of the building and the communication system. USACE Omaha District personnel worked with USSTRATCOM and 55 CES personnel to reduce the scope and the costs of the project while still meeting the requirements for the USSTRATCOM replacement facility. According to USACE Omaha District personnel in the after-action review, the removal of the fourth floor North Bar in amendment 13 reduced the facility square footage

(FOUO) by 78,000 SF. Additionally, amendment 16 removed two cooling tower cells from the contract to reduce costs. USACE Omaha District personnel obtained another Government estimate and solicited the contractors for a second round of proposals at amendment 20, collectively including changes from amendments 12 through 20. The Government estimate of \$562.7 million at amendment 20 was still significantly less than Contractor 3's proposal of [REDACTED]. Therefore, USACE Omaha District personnel continued to make amendments to reduce costs.

Amendments 21 and 22

(FOUO) USACE Omaha District personnel continued to reduce the scope of the project in amendment 21 by removing structural bays and landscaping, and by making parking lots and the Visitor Control Center options on the contract. According to USACE Omaha District personnel's after-action review, amendment 21 also removed three structural bays that reduced the square footage by 68,400 SF. After amendment 22, USACE Omaha District personnel obtained a new Government estimate of \$599.7 million and again requested proposals from the contractors. Contractor 3's proposal was for [REDACTED]. The difference between the Government estimate and Contractor 3's proposal was still over [REDACTED], which further supported USACE Omaha District personnel's statement in the after-action review that the Government's estimate continued to have flaws, errors, and omissions in the cost development.

On June 28, 2012, Senator John McCain sent the Honorable Michael B. Donley, then Secretary of the Air Force, a letter expressing his concerns about potential cost overruns in the design and construction of the USSTRATCOM replacement facility. Senator McCain's letter also stated his concerns that costs eliminated from the contract scope had been shifted to other accounts. Senator McCain requested that the Secretary withhold any action to award the construction contract until USSTRATCOM personnel completed a requirements review. USACE Omaha District personnel stated that the "shifted projects" referred to the Visitor Control Center and the parking lots that were amended to be options on the contract. Following the receipt of Senator McCain's letter, the Secretary decided not to award the construction contract and directed USSTRATCOM personnel to perform a requirements review, as requested by Senator McCain. Therefore, USACE Omaha District personnel attempted to further lower the cost of the facility and address Senator McCain's concerns by issuing additional amendments.

Amendments 23 Through 29

On July 16, 2012, Air Force Headquarters' then-Deputy Air Force Civil Engineer, Mr. Mark Correll briefed the Secretary on the plan to re-scope the USSTRATCOM replacement facility. Mr. Correll also discussed a July 12, 2012, letter from Senator McCain to the Secretary, which advocated re-scoping the facility to include

all previously proposed bid options, as well as a full 5-percent contingency in the base bid. USACE Omaha District personnel worked with USSTRATCOM and 55 CES personnel to make changes in amendments 23 through 29. The most substantial change was amendment 27, which eliminated one structural bay, two diesel generators, and one cooling tower, while adding the Visitor Control Center and parking back into the contract with a reduced scope. Additionally, amendment 29 removed all options on the contract. According to USACE Omaha District in the after-action review, amendment 27 reduced the square footage by 22,800 SF. On August 3, 2012, USACE Omaha District personnel obtained a Government estimate of \$491.3 million and another submission of proposals, including Contractor 3's proposal for \$524.4 million.

~~(FOUO)~~ Based on the proposal that USACE Omaha District received from Contractor 3 after amendment 22, the contract could have been awarded for [REDACTED] for the base contract with an additional [REDACTED] to exercise all options. The options included the Visitors Control Center and parking for [REDACTED]. According to USACE Omaha District personnel, if the construction contract had been awarded for [REDACTED] after amendment 22, there would have been enough contingency funds to cover the Visitor Control Center and parking options. However, the Secretary decided not to award the construction contract after receiving Senator McCain's letter on June 28, 2012, expressing his concerns on "shifted projects." As a result, USACE Omaha District personnel issued amendments 23 through 29 to address Senator McCain's concerns. After amendment 29, Contractor 3's proposal was for \$524.4 million, eliminating one structural bay, two diesel generators, and one cooling tower, while adding the Visitor Control Center and parking back into the contract with a reduced scope. This proposal was [REDACTED] more than the base contract proposal submitted after amendment 22. However, after amendment 22, Contractor 3's proposed cost to exercise the options for the Visitor Control Center and parking was also [REDACTED]. Therefore, if USACE Omaha District personnel had awarded at amendment 22, the USSTRATCOM replacement facility would have included the items eliminated and reduced in scope by amendment 27 for about the same cost as proposed after amendment 29.

In an e-mail that was forwarded to the Secretary, Mr. Correll summarized an August 9, 2012, teleconference with the SASC staff that focused on the USSTRATCOM replacement facility. According to Mr. Correll, the meeting focused on the USSTRATCOM replacement facility. The SASC staff expressed Senator McCain's continued concerns that the project could exceed the programmed amount and sought reasons why Senator McCain should agree that the project should proceed. Mr. Correll provided the project updates included in amendment 29 to the SASC staff to provide to Senator McCain.

On August 14, 2012, Mr. Correll e-mailed Mr. Lloyd Caldwell, the Chief of Programs Integration Division, USACE Headquarters, stating that Senator McCain agreed not to object to the contract award and that USSTRATCOM agreed to hold all customer-driven change order approvals at the Commander, USSTRATCOM level. Mr. Caldwell responded to the e-mail on August 14, 2012, stating that he understood the challenges of the project and that USACE was adopting a high-risk approach to award the contract based on an expectation that the scope would be reduced after contract award to obtain better savings.²⁶ On August 15, 2012, Mr. Caldwell e-mailed Mr. Correll and USACE Northwestern Division personnel, stating that USACE Headquarters agreed to proceed with the construction contract award and directed USACE Northwestern Division to proceed as scheduled for August 16, 2012.²⁷

Decision to Award the Construction Contract With High Risk

Following coordination with Air Force Leadership, including the Secretary of the Air Force, Mr. Correll made the final decision to award the construction contract with high risk. USACE Omaha District contracting personnel awarded the construction contract, W9128F-12-C-0023, on August 16, 2012, to Contractor 3 for \$564 million (\$524.4 million for the basic contract and \$39.6 million for USACE's fee and contingency), with an estimated completion date of September 11, 2016. According to the USACE Omaha District after-action review, the USSTRATCOM replacement facility was awarded with a final scope of 915,376 SF, 84.5 percent of the DD Form 1391 programmed and authorized scope of 1,085,318 SF. USACE Omaha District personnel also awarded the construction contract with a contingency of only 1.1 percent with plans to conduct value engineering.²⁸ Additionally, USACE Omaha District personnel awarded the construction contract without 100-percent design because of the changes resulting from amendments 13 through 29. Incomplete designs and value engineering efforts led to USACE Omaha District personnel issuing modifications to contract W9128F-12-C-0023. Specifically, as of January 26, 2018, USACE Omaha District personnel had issued 1,054 contracting actions to the construction contract.

²⁶ Both the Air Force and USACE agreed that savings after contract award could be achieved through value engineering. Value engineering is an analysis of the functions of a program, project system, product, item of equipment, building, facility, service, or supply of an executive agency performed by a qualified agency or contractor personnel, directed at improving performance, reliability, quality, safety, and life-cycle cost.

²⁷ USACE Omaha District falls under the USACE Northwestern Division located in Portland, Oregon.

²⁸ Projects generally begin with a 5- to 6-percent contingency because similar large, complex Air Force projects, such as the Command and Control, Space, Intelligence, Communications, and Combatant Command headquarters, averaged 11-percent cost overrun.

USACE Omaha District Contracting Personnel Limited Contractor 2 to 45 Days to Complete Re-Design

On August 29, 2012, USACE Omaha District contracting personnel issued modification P00009 to the design contract, for \$655,821, to revise the layout on the design contract drawings to accommodate the revised personnel numbers USSTRATCOM provided to Contractor 2. In addition, the modification required Contractor 2 to deliver the drawings to USACE Omaha District no later than 45 days after issuance of the Notice to Proceed for the construction contract. USSTRATCOM officials estimated that the issuance of the Notice to Proceed would occur on September 4, 2012.

Construction Contract Modifications

As of January 26, 2018, USACE Omaha District personnel had issued 1,054 contracting actions to the construction contract. We reviewed 184 contract actions to identify the reason description and impact on cost and scheduling for each modification.²⁹ See Appendix A for scope and methodology. See Appendix B for a list of the modifications we reviewed.

USACE Omaha District contracting personnel issued modifications for value engineering, the results of design deficiencies, and user requested changes from USSTRATCOM. The Secretary of the Air Force, Environment and Installations Office, provided a USSTRATCOM replacement facility timeline, which stated that contingency funding proved inadequate because of complexity, scope, risk, and modifications directly related to awarding the contract before completing the redesign. Therefore, two ATRs were essential to provide funds for necessary modifications and avoid delay costs.

Permanent Earth Retention System Wall Modifications

USACE Omaha District contracting personnel issued modification series R00009 to revise the top elevation of the PERS wall for the area along the east wall. We found that, during the request for proposal, changes made to the overall design affected the design of the PERS wall and contract documents did not account for those changes. Because of this design problem, USACE Omaha District contracting personnel's modification specified that the contractor raise the top elevation of the PERS wall 10 feet higher in the section specified. The contract modification stated that the contractor was due damages:

Due to the nature of the amendment process during the bidding phase of this contract, the layout of the PERS wall was not anticipated until work started on the construction site. The decision to raise the wall was made to provide assurances to the

²⁹ The 184 contract actions includes both modifications to the contract and incremental funding actions.

user that the critical areas of the building were well protected from water infiltration to avoid problems they are experiencing in their current building.

USACE Omaha District personnel obtained the Government estimate of \$680,798 for modification series, R00009. The actual cost of the modification was \$591,708. Although it was under the estimate, it increased the overall cost of the contract.

Value Engineering Modifications

USACE Omaha District personnel stated in the after-action review that the amendments to the solicitation did not yield the expected savings. Therefore, USACE Omaha District contracting personnel issued value-engineering modifications in an attempt to produce cost savings after award. Unfortunately, the estimated costs savings did not always reflect the actual savings. For example, USACE Omaha District personnel issued modification R00027 on January 31, 2014, to remove 54 mezzanine telecommunications closets, including the structure and equipment, from the contract. The Government estimate projected a cost savings of \$6 million but the modification only produced a cost savings of \$1.2 million.³⁰

Design Deficiency Modifications

USACE Omaha District contracting personnel issued modification series R00368 after the award of the contract because Contractor 3 submitted a request for information requesting clarification of the deck design requirements to resist a progressive collapse.³¹ Contractor 2 responded that the deck design did not meet the Unified Facilities Criteria concerning progressive collapse requirements. USACE Omaha District personnel obtained a Government estimate for the work for \$380,225, but after the series of seven modifications necessary to meet the Unified Facilities Criteria for progressive collapse, the total cost was \$4.8 million. In addition to increasing the cost of the contract, modification series R00368 delayed the schedule by 59 days.

³⁰ USACE Omaha District provides an "R" number to each modification to organize modification series. Specifically, a modification series consists of multiple relating modifications issued at different times.

³¹ Progressive collapse is the spread of an initial local failure from element to element, eventually resulting in the collapse of an entire structure or a large part of it.

Design Deficiencies Related to Request for Proposal Scope Changes

USACE Omaha District contracting personnel issued a modification requiring Contractor 3 to perform a complete review of conformed drawings.³² USACE Omaha District contracting personnel issued modifications to the construction contract as a result of issues identified in the conformed drawings review. USACE Omaha District contracting personnel intended these modifications to pay Contractor 3 for additional work they could not account for during the solicitation process. For example, because of other revisions made in the construction solicitation amendments, the size of the concrete retaining walls needed to change. However, Contractor 3 did not include the changes to the concrete retaining wall in its proposal because the design continued to change throughout the solicitation process and final conforming drawings were not complete until after Contractor 3's final proposal was submitted. Therefore, USACE Omaha District contracting personnel issued contract modification R00084 to pay the contractor \$162,661 for the additional costs of building larger retaining walls that were not included in the awarded design.

During our review of contract modifications, we determined that USACE Omaha District contracting personnel awarded at least eight series of modifications, totaling \$1.8 million, for design deficiencies related to request for proposal scope changes.

Design Deficiencies Related to DoD-Unique Requirements

USACE Omaha District contracting personnel issued modifications related to DoD-unique requirements. For example, modification R10363 revised conformed drawings because of a security review of the design of a SCIF in the USSTRATCOM replacement facility.³³ USACE Omaha District personnel made the modification request, which stated that, as designed, the building would not meet SCIF certification requirements. USACE Omaha District issued modification R10363 to construct the new design to meet SCIF certification requirements, increasing the cost of the contract by \$254,577. Altogether, we identified eight modification series, totaling \$3.8 million, for design deficiencies related to DoD-unique requirements.

³² USACE Omaha District uses the term "conformed drawings" when referring to the contract award designs. The contract awarded designs incorporate changes from the solicitation amendments and construction contract modifications to the designs.

³³ We classified a requirement as DoD-unique if it was related to a function typically found only in DoD buildings, such as a unique security requirements or national defense functions.

User Requested Modifications

AFCEC personnel stated that they approved 34 user requested changes from USSTRATCOM. USACE Omaha District contracting personnel issued modifications to the construction contract for user requested changes. For example, USSTRATCOM's Program Management officials requested to adjust the layout of the communications conduit and the cable trays to meet requirements. USACE Omaha District personnel obtained the Government estimate and expected a \$1.3 million decrease to the overall contract value for modification series R00131. However, the actual cost of the modification increased the overall contract value by \$1.8 million.

Above-Threshold Reprogramming

According to the USSTRATCOM replacement facility timeline, USACE Omaha District personnel awarded the project at the programmed amount of \$564 million at medium-high risk because of extremely low contingency funding and incomplete redesigns. USACE Omaha District personnel increased the contingency funding through value engineering and credit modifications. According to the USSTRATCOM replacement facility timeline, the inadequate contingency funding required two ATRs to fund the project.

Above-Threshold Reprogramming 1

According to the USSTRATCOM replacement facility timeline, in July 2014, Congress approved an ATR of \$37 million that replenished the contingency funds for necessary modifications and avoided delay costs. USACE Omaha District personnel stated that the project team evaluated various reprogramming amounts using a Monte Carlo simulation, which showed an 85-percent confidence level that \$37 million would be sufficient funds to complete the project.³⁴ Congress approved the first ATR to increase the programmed amount from \$564 million to \$601 million, a 6.5-percent increase.

Above-Threshold Reprogramming 2

The USSTRATCOM replacement facility timeline stated:

In August 2016, the project had 14 months of contingency funding remaining, which sufficed to cover known modifications and finish the project. But there was not enough funding remaining to cover legitimate required equitable adjustment (REA) claims that had been submitted and not yet been resolved which drove a future decision point of Spring 2017 on whether to request another ATR action.

³⁴ The Monte Carlo simulation software is a computational algorithm that uses random samples to obtain a range of possible outcomes and the probability they will occur.

The Senior Executive Review Group met on March 3, 2017, to consider the options for a second ATR action and decided to request a \$16.1 million ATR. In August 2017, Congress approved the second ATR for \$16.1 million, which increased the programmed amount from \$601 million to \$617.1 million, a 9.4-percent growth from the original programmed amount of \$564 million.

USACE Contractor Oversight

USACE Omaha District personnel provided multiple levels of quality assurance oversight for the USSTRATCOM replacement facility MILCON project, including Resident Management System (RMS) reports and inspection logs. However, USACE officials did not file Contractor Performance Assessment Reporting System (CPARS) reports on the contractor's performance as required by the FAR part 42.³⁵

Quality Control and Quality Assurance Daily Reports

The USACE Omaha District Quality Assurance Chief issued a series of daily reports on contractor oversight of the USSTRATCOM replacement facility, a user-friendly comprehensive system for effective management of construction contracts. These daily reports were broken down into two separate reports—one focused on quality control while the other focused on quality assurance.

USACE Omaha personnel, generally the on-site quality assurance inspectors, wrote the quality assurance reports. The inspectors composed the reports electronically in RMS and then printed them out in hardcopy form. Once the report was completed, the USACE project engineer or resident engineer signed it and stapled it to the quality control report.

Additionally, the contractor wrote the quality control report and submitted it to USACE through the Quality Control System, which is a subpart of RMS. The contract requires the contractor to submit these daily reports to USACE both electronically through the Quality Control System and by hardcopy with all attachments.

The quality assurance reports and the quality control reports are kept together as a part of the official contract file that will eventually be stored by the Contracting Office. The documents provide a daily review of ongoing construction work, progress, and problems from both the contractor and USACE Omaha District perspectives.

³⁵ CPARS is the Government-wide reporting tool for past performance on contracts.

To test the completeness and accuracy of the RMS, we reviewed 4 months of daily RMS reports, from September 1, 2017, through December 31, 2017. We reviewed each daily report for completeness. To test the accuracy of RMS, we selected multiple quality assurance deficiencies. We were able to follow specific deficiencies through the daily logs, identify the deficiency creation date, scheduled fix date, and closeout. We also selected multiple quality assurance deficiencies that, as of February 2018, were not closed out.

Using the USACE RMS, we were able to track the specific deficiencies in the online system to determine whether USACE personnel are accurately tracking all open quality assurance deficiencies up to and through closeout.

To further test the accuracy of the RMS online system, we identified dates throughout the contract on which significant events took place. We identified three significant events: a flood on January 24, 2018; a fire on April 20, 2017; and the identification of mold on September 9, 2015. We also selected a random date, July 14, 2017, to test. For each date, we searched the RMS database to obtain detailed quality assurance and quality control reports describing the events of each day. However, according to USACE Omaha District quality assurance personnel, there is a report backlog of 1 to 2 months; therefore, complete reports are not available for more recent events. For example, we searched for the January 24, 2018, flood 21 days after the event, on February 14, 2018. Because of the report backlog we were only able to obtain an incomplete report, which did not yet detail the flood. To document this event, the USACE Omaha District Quality Assurance Chief provided us an accident investigation report, which thoroughly detailed the events behind the flood on January 24, 2018. Accident investigation reports are initiated if the damage is between \$50,000 and \$500,000. The flood caused a significant amount of damage to the building, and therefore prompted an accident investigation report. USACE Omaha District quality assurance personnel provided the final RMS daily report for January 24, 2018, which contained all pertinent information on the flood and was approved by the project engineer on March 6, 2018, once the report backlog was cleared.

Mold in Installed and Staged Ductwork

USACE Omaha District quality assurance personnel discovered mold in installed lined ductwork, as well as ductwork awaiting installation at the USSTRATCOM replacement facility. On September 9, 2015, USACE Omaha District quality assurance personnel witnessed Contractor 3's subcontractor installing moldy ductwork. In the following days, USACE Omaha District quality assurance personnel conducted a series of tests on both installed pieces of ductwork and uninstalled pieces of ductwork, revealing numerous mold issues.

Introduction of Mold to the USSTRATCOM Replacement Facility

Contractor 3 installed ductwork that contained mold into the USSTRATCOM replacement facility, potentially introducing complex Indoor Air Quality (IAQ) problems. According to the Occupational Safety and Health Administration, IAQ is a term that “describes how inside air can affect a person’s health, comfort, and ability to work.” A number of Federal agencies, such as the Occupational Safety and Health Administration, the Department of Energy, and the Consumer Product Safety Commission, are actively involved in IAQ research or developing policy guidance; however, no one agency has a clear regulatory role. The American Society of Heating, Refrigerating, and Air Conditioning Engineers established the most widely recognized IAQ standard, which defines acceptable IAQ as “air in which there are no known contaminants at harmful concentrations as determined by cognizant authorities and with which a substantial majority (80 percent or more) of the people exposed do not express dissatisfaction.”

According to the Air Force Research Laboratories (AFRL) Technical Guide for IAQ Surveys, if mold growth is detected in buildings, it must be remediated and the cause of the growth eliminated. Regardless of the type of biological growth, the recommendation is the same—visible mold always requires remediation. In the AFRL Technical Guide for IAQ Surveys, the former Director of the Occupational Medicine Residency Program at the Air Force School of Aerospace Medicine stated, “It does not matter what type of mold is in a building. Mold is ubiquitous, and there is no value in determining what types are present inside.” We interpreted that to mean that any mold identified in an Air Force building must be removed.

According to the AFRL Technical Guide for IAQ Surveys, the design and maintenance of a Heating Ventilation and Air Conditioning system has significant influence on IAQ. The same Heating Ventilation and Air Conditioning system that distributes conditioned air throughout a building can distribute dust and other pollutants, including biological contaminants such as mold.

According to the AFRL Technical Guide for IAQ Surveys, if there is visible mold growth, air ducts are to be properly cleaned or replaced. The AFRL further states that, if the insulation in insulated air ducts gets wet or moldy, it cannot be effectively cleaned and should be removed and replaced. Full removal must occur because, if the conditions causing the mold growth are not corrected, mold growth will reoccur and further endanger future building inhabitants.

USACE Serial Letter No. C-0650

After USACE Omaha District quality assurance personnel identified moldy ductwork at the USSTRATCOM replacement facility on September 9, 2015, they issued Serial Letter No. C-0650, on September 11, 2015, directing Contractor 3 to stop work on all installation of lined ductwork. Subsequently, USACE Omaha District quality assurance inspectors also discovered what appeared to be mold in lined ductwork already installed on multiple floors in the replacement facility. USACE Omaha District quality assurance performed successive tests that revealed mold infestation in more than 50 percent of the lined ductwork installed in the USSTRATCOM replacement facility.

In addition to issuing the stop work order, Serial Letter No. C-0650 instructed Contractor 3 to submit a mold investigation and remediation plan, and to remove and replace all moldy materials in compliance with the Joint IAQ Management Plan. All mold identified was to be tested by a licensed industrial health specialist to determine if the mold would cause safety or health issues for the workers on the construction site. Additionally, USACE Omaha District personnel required Contractor 3 to draft a plan to mitigate the conditions that led to the mold growth, by providing sufficient ventilation, air circulation, and air changes to dissipate excess humidity at the site. Furthermore, USACE Omaha District personnel barred Contractor 3 from continuing any lined ductwork installation until they resolved the mold issue and received written permission to resume work from USACE Omaha District personnel.

USACE Serial Letter No. C-0711

On October 28, 2015, USACE Omaha District quality assurance personnel and Contractor 3 quality control personnel inspected lined ductwork that was stored in trailers onsite. According to USACE Omaha District quality assurance personnel, the first trailer inspected (NE trailer XLK 916) contained what appeared to be moldy ductwork based on visual observation. USACE Omaha District quality assurance personnel documented their findings with photographs. Figure 1 shows a picture of the ductwork stored in trailers.



Figure 1. Ductwork Stored in a Contractor 3 Trailer
Source: USACE Omaha District.

USACE Omaha District quality assurance personnel immediately reported the moldy ductwork stored in the trailer to USSTRATCOM Resident Office management staff. USACE Omaha District quality assurance personnel ended the inspection of the first trailer to obtain recommendations from USACE industrial hygienists and safety personnel about what procedures and personal protective equipment they should use to inspect onsite trailers that could contain moldy materials.

On November 10, 2015, USACE Omaha District quality assurance personnel issued a second serial letter, No. C-0711, to Contractor 3 outlining multiple serious concerns. Foremost amongst the concerns, USACE Omaha District quality assurance personnel believed that the mold was not likely to be limited to the one trailer inspected or the sample of the ductwork that was stored in building. USACE Omaha District quality assurance personnel further noted that Government quality assurance personnel recorded deficiencies on numerous pieces of ductwork at each inspection and that, because of the amount of rework necessary to correct the mold problem, Contractor 3 may not be able to meet the contract completion date. USACE Omaha District quality assurance personnel expressed other concerns, such as the failure of Contractor 3's quality control plan to prevent moldy ductwork from being assembled, delivered, stored onsite, or staged inside the building. Lastly, USACE Omaha District quality assurance personnel observed that the lined ductwork in storage onsite (noted in Serial Letter No. C-0650) had begun to show visible mold growth.

According to USACE Omaha District quality assurance personnel, subsequent tests revealed that the mold problem was not limited to one specific trailer and was observed in a majority of the trailers housing ductwork waiting to be installed in the USSTRATCOM replacement facility.

As a result of Serial Letter No. C-0711, USACE Omaha District personnel required Contractor 3 to notify the Government before moving any of the ductwork stored in the temporary trailers or removing from the construction site unless USACE Omaha District quality assurance personnel inspected all materials first.

After more than 2 months of insisting on in-place remediation, Contractor 3 submitted a Removal and Replacement Plan in December 2015. Because of the dispute, moldy staged materials remained in the building until early December 2015. Contractor 3 completely removed the initial round of moldy ductwork in January 2016 and began installation of the replacement ductwork in February 2016. The delayed resolution resulted in a day-for-day schedule loss of nearly 3 months. According to USACE personnel, this delay forced Contractor 3 to re-order activities by constructing underfloor utilities and raised access flooring before completing overhead work.

USACE Omaha District personnel estimated that the mold and subsequent IAQ concerns caused a 4- to 6-month delay. According to USACE Omaha District personnel, they continued to discover additional moldy ductwork in contractor storage trailers at the site, further impacting project schedule. USACE Omaha District personnel believe that mold growth in the ducts was the result of improper fabrication and failure to protect the materials during storage and staging. Although it caused a significant delay to the completion date of the USSTRATCOM replacement facility, if USACE Omaha District quality assurance personnel had not detected and mitigated the mold, the completed USSTRATCOM replacement facility may have posed serious health risks to its occupants.

Quality Assurance Inspection Logs

USACE Omaha District quality assurance personnel performed quality assurance inspections and recorded the results in inspection logs. USACE Omaha District quality assurance personnel's inspection logs provide details such as description, inspection number, time, area, inspection results, who attended the inspection, mapping of the area inspected, and the inspected items. According to USACE Omaha District quality assurance personnel, these inspections take place when the contractor notifies the USACE Omaha District quality assurance that an area of the USSTRATCOM replacement facility is completed and ready for inspection. USACE Omaha District quality assurance personnel inspect the areas and create the inspection logs, then provide the inspection logs to the contractor

with an inspection rating of Passed, Partially Passed, or Inspection Did Not Pass. The contractor fixes the deficiencies identified in the quality assurance inspections and requests USACE Omaha District quality assurance personnel to re-inspect the areas to close out the inspection log.

We reviewed 123 Level 1 inspection logs—specifically, the wall close-in category, which includes inspections of shaft duct insulation, divider walls, fire stopping, and fire seal. Of the 123 inspection logs we reviewed, 121 contained a “Passed” rating. However, only 27 of those received this rating on the first inspection. In addition, as of February 14, 2018, one inspection log for close-in of the west wall from July 22, 2015, contained a pending date that was still not closed out, and one quality inspection log for a shaft wall close-in contained a rating of “Inspection Did Not Pass” and still required a re-inspection.

In the inspection logs we reviewed, USACE Omaha District quality assurance personnel described common discrepancies identified in multiple inspection areas. For example, USACE Omaha District quality assurance personnel recorded 34 inspection logs that identified fireproofing discrepancies, such as fireproofing beams and patch to cover ground weld areas, patch fireproofing, and missing or inadequate fireproofing. Furthermore, USACE Omaha District quality assurance personnel recorded 47 inspection logs with discrepancies related to insulation, such as filling in gaps between sheets of insulation, missing or inadequate insulation, excess insulation not removed, and damaged insulation. Other common discrepancies included the contractor missing screws in different areas (identified in 36 inspection logs), contractor failure to use fire caulking properly (identified in 30 inspection logs), and damaged or bent studs in place that required repair (identified in 38 inspection logs). Table 4 shows the most common discrepancies identified in the USACE Omaha District quality assurance inspection logs and the number of inspection logs in which they are reported.

Table 4. Common Contractor Discrepancies

Common Discrepancies	Inspection Logs with Discrepancies
Fireproofing	34
Missing Screws	36
Fire Caulking	30
Insulation	47
Damaged / Bent Studs	38
Deflection	11

Source: The DoD OIG.

According to USACE Omaha District quality assurance personnel, Contractor 3 struggled to complete areas in accordance with the contract from the start of the project and some deficiencies were re-inspected three or four times before closeout. According to USACE Omaha District quality assurance personnel, the contractor consistently took 2 to 6 weeks to close out deficiencies. However, in some instances the contractor did not fix deficiencies for as long as 2 years—one inspection from July 2015 remains open as of February 2018. For example, according to USACE Omaha District quality assurance personnel, for wall close-in Inspection Log No. 109, the first inspection took place on August 21, 2015; however, the contractor did not pass the inspection until May 23, 2016, over 9 months later. In another example, for wall close-in Inspection Log No. 160, the first inspection took place on November 13, 2015; however, the contractor did not pass the inspection until May 23, 2016, over 6 months later. USACE Omaha District quality assurance personnel stated that the contractor continuously repeated the same mistakes and deficiencies.

Quality Assurance and Quality Control Practices

Overall, USACE Omaha District quality assurance personnel performed acceptable quality assurance practices. Although the USSTRATCOM replacement facility project experienced significant delays, we concluded that USACE Omaha District quality assurance personnel minimized project delays by identifying and addressing weaknesses and concerns. USACE Omaha District RMS reports and inspection logs were essential in maintaining the required level of quality assurance and quality control. USACE Omaha District quality assurance personnel's quality inspections successfully identified mold in the ductwork and ensured that the contractor met the contract requirements.

Contractor Performance Assessment Reports

USACE Omaha District officials consistently missed CPARS reporting deadlines and eventually decided not to file CPARS reports as required by the FAR. CPARS is a paperless contractor evaluation system. The FAR requires Government officials to evaluate contractor performance in CPARS, the Government-wide reporting tool for past performance on contracts. The primary purpose of CPARS is to ensure that current, complete, and accurate information on contractor performance is available for use in procurement source selections. Officials evaluate contractors in CPARS by preparing a performance assessment report. When officials submit a completed performance assessment report, it automatically transfers to the Past Performance Information Retrieval System, the Government-wide repository for

past performance data. Government source selection officials obtain performance assessment reports from this system. The FAR requires contractor evaluation to be prepared and submitted at least annually and completed within 120 days of the end of each evaluation period.

For contract W9128-F-10-C0001 (Contractor 2-Design Contract), USACE Omaha District officials failed to issue multiple CPARS reports, including the initial CPARS report and the report covering the period of time from October 2012 through October 2013. For the period covering October 2015 through December 2017, USACE Omaha District officials issued one all-encompassing CPARS report, which did not comply with the mandate for annual reporting.

In addition, USACE Omaha District officials CPARS reporting for contract W9128-F-12-C0023 (Contractor 3-Construction Contract) did not comply with the intent of the FAR. USACE Omaha District officials only issued one CPARS report on this project, covering the period from August 2013 through August 2014. USACE Omaha District management decided to hold future CPARS reports after submitting that initial CPARS report, intentionally circumventing the FAR. In an e-mail, the USACE Omaha Deputy District Engineer stated:

(FOUO) It was a USACE Corporate Decision dating back to 2015 not to issue an interim unsatisfactory CPARS Evaluation. [REDACTED]

[REDACTED]

[REDACTED]

(FOUO) [REDACTED]

Although USACE Omaha District officials made the decision to delay the interim CPARS report, USACE Headquarters management was aware of and agreed with the decision. The former Commander, USACE Omaha District, stated that it was ultimately his decision not to issue the CPARS and that he “fully owned” that decision.

We recognize that, during performance over an extended period, construction contractors could reduce or eliminate initial delays and cost increases, resulting in interim CPARS reports that are not indicative of the overall project performance. However, by not completing CPARS reports, USACE Omaha District personnel did not comply with the FAR. Additionally, Contractor 3 and USACE Omaha District personnel could have benefited from a CPARS report and the related contractor comments to identify areas to improve the working relationship. Also, USACE Omaha personnel failed to inform source selection personnel throughout the Government of the issues encountered during the USSTRATCOM replacement facility project, which could result in a poor performing contractor receiving additional contracts.

Before July 2014, DoD personnel did not use CPARS to report on the architect-engineer or construction contracts. Instead, the DoD used the Architect-Engineer Contract Administration Support System and the Construction Contractor Appraisal Support System to record the performance of contractors in these areas. Although the Architect-Engineer Contract Administration Support System did require an annual interim rating if a contract period of performance was greater than 18 months, the Construction Contractor Appraisal Support System required only a final performance rating at the time of final acceptance of work.³⁶

³⁶ Both systems allowed for interim evaluations as appropriate or in accordance with agency guidance.

The Government Accountability Office recommended a transition to a single set of evaluation factors for use in contractor performance evaluations and a single method for collecting contractor performance evaluations throughout the Government.³⁷ Contractor Performance Assessment Reporting System version 4.0.0, July 1, 2014, reflects the consolidation of the Architect-Engineer Administration Support System and Construction Contractor Appraisal Support System modules into CPARS.

Summary of Delays

To address the FY 2018 NDAA requirement that the DoD OIG report on specific reasons that have been used to explain the delays in the USSTRATCOM replacement facility project, we summarized incidents that caused significant delays to the construction completion date. USACE Omaha District experienced delays to the USSTRATCOM replacement facility project from its inception, beginning with the contract award. The project continued to experience schedule delays because of the lack of expert involvement in the requirements development, contract modifications, a fire, floods, mold, and challenges related to the execution of contract modifications.

Contract Award Delay

USACE Omaha District personnel issued the solicitation for the construction contract on August 2, 2011, with proposals required in November 2011. According to a USSTRATCOM replacement facility timeline, the award of the construction contract was estimated to be December 2011 with a construction completion date of February 2016. USACE Omaha District did not award the construction contract for the USSTRATCOM replacement facility until August 16, 2012, with an estimated completion date of September 11, 2016, thus delaying the project completion date by 6 months on the day of award.³⁸

Permanent Earth Retention System Wall Leakage Delay

USACE Omaha District personnel stated that, in July 2013, the PERS wall components did not seal properly, allowing water and sediment from behind the wall to enter the excavation. This occurred because Contractor 3 improperly placed anchors in the wall with incorrect tensioning. According to USACE Omaha District personnel, Contractor 3 resisted taking action to resolve the problems until

³⁷ GAO Report No. GAO-09-374, "Better Performance Information Needed to Support Agency Contract Award Decisions," April 2009.

³⁸ We calculated the 6-month delay by adding the number of months between the originally planned completion date of February 2016 and the contracted completion date of September 11, 2016. To be conservative, we did not count the month of February as a whole month because we do not know the exact day of the planned construction completion date.

USACE Omaha District personnel informed the contractor that a stop work order was imminent. The USSTRATCOM replacement facility timeline indicated that the PERS wall leakage caused a 3-month delay. Figure 2 shows water leaking from the PERS wall.



Figure 2. Water Leaking from the PERS Wall
Source: USACE Omaha District.

Mold Delay

As discussed in the quality assurance and quality control section of the report, on September 9, 2015, USACE Omaha District quality assurance inspectors discovered mold in lined ductwork at the USSTRATCOM replacement facility. The USACE Omaha District Administrative Contracting Officer issued a serial letter on September 11, 2015, directing Contractor 3 to stop installing lined ductwork until it completed a mold investigation and remediation plan. According to the USSTRATCOM replacement facility timeline, mold inspections continued until August 2017. In a February 26, 2016, report on significant construction challenges at the USSTRATCOM replacement facility, USACE Omaha District estimated that the mold in the ductwork and IAQ issues resulted in a delay of 4 to 6 months. Figure 3 shows mold in the ductwork at the USSTRATCOM replacement facility.



Repeated Rejections of Submittals Resulted in Delays

The USSTRATCOM replacement facility timeline indicated that administrative disagreements on modifications between the Government and Contractor 3 also resulted in construction delays. According to modification series R00601, issued by USACE Omaha District on June 13, 2016, a design deficiency was discovered in which the cable tray for the -48V DC Uninterruptible Power Supply system was undersized and did not meet the 2008 National Electrical Code. The modification documentation did not indicate that the work required to execute the modification caused a schedule delay; however, according to the USSTRATCOM replacement facility timeline, as of June 7, 2016, USACE Omaha District personnel repeatedly rejected submittals Contractor 3 made before executing the modification, delaying the project for 2 months and 6 days.

Fire in the USSTRATCOM Replacement Facility

On April 20, 2017, a welder employed by a Contractor 3 subcontractor caused a fire that delayed the project almost 2 months. The Assistant Fire Chief, Offutt Fire and Emergency Services, investigated and reported on the cause of the fire and

the resulting damage. In the report, the Assistant Fire Chief determined that the fire originated from a piece of cardboard left in the ductwork to block airflow for pressure testing. The piece of cardboard ignited when the welder performed welds on the support bars for the security bars within the insulated ductwork. Figure 4 shows the charred cardboard left in the ductwork.



Figure 4. Charred Cardboard Left in the Ductwork
Source: USACE Omaha District.

The Assistant Fire Chief determined that the welder could not have accessed the ductwork to know that the cardboard was over the area where he was welding. The Assistant Fire Chief found heavy smoke damage and observed several burn patterns on the bottom of the duct, indicating that the fire spread, burning insulation, coatings, and dust in the ductwork.

Flood in the USSTRATCOM Replacement Facility

On April 21, 2017, a material failure of a copper pipe joint caused a flood that delayed the project and destroyed a generator's alternator. According to USSTRATCOM personnel, when the pipe failed, 9,000 gallons of water poured

out onto a HEMP generator, destroying the alternator.³⁹ Contractor 3 took responsibility for the flood and replaced the alternator. Figure 5 shows water sitting in the HEMP generator.

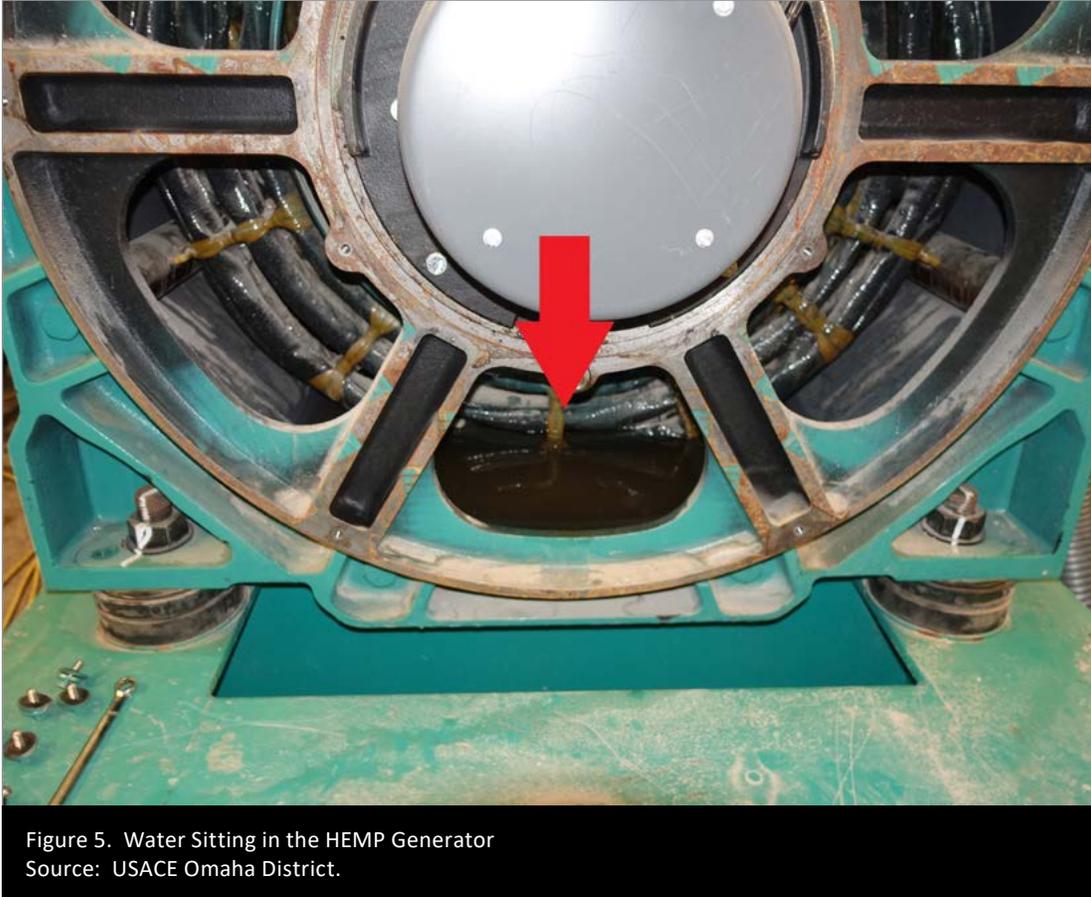


Figure 5. Water Sitting in the HEMP Generator
Source: USACE Omaha District.

Second Flood in the USSTRATCOM Replacement Facility

On January 24, 2018, a second flood occurred in the USSTRATCOM replacement facility. During the course of construction, Contractor 3's subcontractor mistakenly installed incorrect flow balance valves on multiple hot water lines throughout the USSTRATCOM replacement facility. These valves provide a specific flow rate and include an internal mechanism that automatically regulates the flow through the water pipes. For many of these valves, the internal "cartridge" could be replaced to achieve the correct flow rate; however, the valves that caused the flood had to be replaced entirely to achieve the designed flow.

³⁹ Electromagnetic Pulse (EMP) is an instantaneous, intense energy field that can overload or disrupt at a distance numerous electrical systems and high technology microcircuits, which are especially sensitive to power surges. A single nuclear explosion detonated high in the atmosphere can produce a large-scale EMP effect. This method is referred to as High Altitude EMP (HEMP).

To replace the entire valve, the subcontractor must first close an integrated shutoff valve in the unit, then locate and turn the upstream isolation valve, which will stop the flow of water completely to the pipe in question. In this particular instance, the subcontractor only turned off the integral shutoff valve and did not close the isolation valve upstream of the balance valve. The live water line immediately began spraying water when the cutting wheel breached the pipe wall. This water sprayed directly onto the IT equipment racks located below the pipe. The upstream isolation valve was eventually located and closed after the water sprayed for approximately 10 minutes.

Once the water supply was shut off and it was safe to enter the area, Contractor 3 personnel entered the area along with the subcontractor to start the cleanup process and to identify any damage. In this particular room, another Government contractor was installing IT equipment. The IT equipment contractor also entered the area to inspect equipment and identify damage from the water release. The IT equipment contractor determined that three racks containing IT equipment were wet, and the equipment within these racks would need to be returned to the manufacturer for inspection and repair. In total, the flood caused damage estimated at \$35,250.

Lack of Contractor Qualified Tradesman

The USSTRATCOM replacement facility timeline noted that, throughout the project, Contractor 3's lack of qualified tradesman further delayed the project. Specifically, USACE Omaha District personnel stated that Contractor 3 should have 1,200 to 1,400 contractor staff onsite at any given time, but never provided more than 800 to 900 personnel at a time because of the shortage of construction workers and a non-Government construction project in the area. According to the USSTRATCOM replacement facility timeline, the contractor's inability to field an adequate technical workforce, such as dry wall installers, reduced the number of skilled laborers onsite and ultimately extended the project construction schedule by an additional 10 months.

Construction Contract Completion Date Delay of 29 Months

As described above, USACE Omaha District personnel experienced schedule delays throughout the project caused by modifications, a fire, floods, mold, and USACE Omaha District personnel's repeated rejections of Contractor 3's proposals for modifications. As of February 9, 2018, the estimated completion date of the construction contract was August 2, 2018, a delay of 29 months (including the 6-month delay from the originally planned completion date of February 2016).

Summary of Costs

To address the FY 2018 NDAA requirement that the DoD OIG report on specific reasons that have been used to explain the 10-percent cost increase for the project, we summarized the costs for the USSTRATCOM replacement facility by contract.

Design Contract

A USACE Omaha District contracting officer awarded the design contract on October 16, 2009, for \$3.1 million. According to modification P00028, issued on July 3, 2017, \$44.7 million had been obligated on the design contract, with the potential to incur additional costs until the construction of the USSTRATCOM replacement facility is complete.

Construction Contract

Air Force officials programmed the USSTRATCOM replacement facility for \$564 million in September 2010. USACE Omaha District contracting office personnel awarded the construction contract on August 16, 2012, at the programmed amount of \$564 million (\$524.4 million for the basic construction contract and \$39.6 million for the USACE fee, contingency, and demolition of the existing USSTRATCOM complex) and with a programmed size of 1,085,318 SF. Congress approved the first ATR for \$37 million in July 2014 and an additional ATR for \$16.1 million in August 2017. As of February 2018, the total construction contract cost was \$617.1 million for 915,376 SF. We determined that the value of the 169,942 SF removed from the solicitation amendments to the USSTRATCOM replacement facility is \$52.1 million.⁴⁰ Additionally, AFCEC personnel directed USACE Omaha District personnel to move \$3.3 million that was set aside for the demolition of the existing USSTRATCOM complex to the USSTRATCOM replacement facility construction contingency funds to cover engineering modification costs. Because the demolition will no longer be accomplished under the USSTRATCOM replacement facility construction contract, we determined that the value of the programmed demolition, \$3.3 million, should be viewed as an additional cost to the project.⁴¹

⁴⁰ We used an estimate to determine the cost per SF for the USSTRATCOM replacement facility to be \$306.70 per SF. To be conservative, we calculated the cost per SF by using a mid-range cost of administrative space recorded in the various DD Forms 1391 used during the planning of the replacement facility. Administrative space is less costly to construct than secure areas; however, we were unable to determine how much of the reduced SF was secure.

⁴¹ The DD Form 1391 originally planned for the demolition of a portion of the USSTRATCOM complex; however, the demolition costs were later removed to use the funds for modification costs. The Air Force has not subsequently determined or programmed cost for demolition.

Other Contracts

We identified additional contracts to complete the USSTRATCOM replacement facility project. The additional projects include a security contract, IT and Communications System agreement, a FY 2019 MILCON project for a parking lot, and additional projects for gate and road improvements to the base that have not yet been programmed. See Table 5 for costs associated with the USSTRATCOM replacement facility.

Table 5. Costs Associated with the USSTRATCOM Replacement Facility Project

Contract	Amount (in millions)
Design Contract	\$44.7
Construction Contract	564*
ATR 1	37
ATR 2	16.1
Subtotal of Construction Contract	\$617.1
Security Contract	54.1
IT and Communications	35.8
Parking	9.5
Demolition	3.3
Equipment and Furnishings	542
Total	\$1,306.5

*Includes basic contract awarded at \$524.4 million plus USACE fee and contingency of \$39.6 million.

Source: The DoD OIG.

Security Contract

Personnel from the 55th Contracting Squadron awarded the security contract for the USSTRATCOM replacement facility, on April 18, 2013, for a base amount of \$4 million, with 6.5 option years. As of March 2018, Contracting Squadron personnel were executing option year 4 and, according to the basic contract, should have obligated \$38.4 million; however, as of March 13, 2018, the 55th Contracting Squadron had obligated \$54.1 million—a difference of \$15.7 million—illustrating the additional cost incurred because of the delays on the project.

Information Technology and Communications

On January 15, 2011, USSTRATCOM officials decided to use SPAWAR Systems Center Pacific as the IT Designer of Record. USSTRATCOM personnel coordinated with SPAWAR to design the IT and Communications for the USSTRATCOM

replacement facility because SPAWAR has unique expertise to enable design and installation. Based on the CCD, Air Force officials programmed \$35.8 million of the MILCON funding for the USSTRATCOM replacement facility related to IT and Communications.

Parking

Air Force officials programmed \$9.5 million of FY 2019 MILCON funds to construct a new parking lot in support of the USSTRATCOM replacement facility. USSTRATCOM and Air Force personnel had already included this parking lot in the approved DD Form 1391 programmed amount for the construction of the USSTRATCOM replacement facility. According to USSTRATCOM personnel, this parking lot was originally programmed but was unfunded as part of the construction contract for the USSTRATCOM replacement facility. Subsequently, during the issuance of cost-cutting amendments, USACE Omaha District, USSTRATCOM, and Air Force personnel reduced the scope of the parking lot in amendment 27, which eliminated a parking lot from the basic contract. The FY 2019 MILCON project provides the USSTRATCOM replacement facility with the authorized amount of parking required for the facility.

Total Projected Cost of USSTRATCOM Replacement Facility

USSTRATCOM and 55 CES personnel included additional cost estimates from appropriations outside of MILCON in the DD Form 1391 for equipment and furnishing costs that are necessary to the completion of the USSTRATCOM replacement facility. The DD Form 1391 lists the estimated additional equipment and furnishing costs, which total \$542 million. We estimate the total cost of the USSTRATCOM replacement facility is \$1.3 billion. We calculated the estimated total cost of the USSTRATCOM replacement facility by adding all associated costs.

**FY 2018 NDAA Section 2824(b) Reporting Element 2:
Corrective Actions Taken to Prevent Further Schedule
Delays and Cost Increases**

In this section, we examined the specific actions taken to prevent further schedule delays and cost increases on this project and lessons learned for future projects. We answered this element by reviewing the corrective actions taken by the OASD(EI&E), AFCEC, and USACE personnel.

DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 2

We determined that the OASD(EI&E), AFCEC, USACE Headquarters, and USACE Omaha District have implemented or are in the process of implementing several initiatives to prevent further schedule delays and cost increases on this project and to apply lessons learned for future projects. These initiatives include updated guidance on roles, responsibilities and management controls; additional training programs for cost estimators; after-action reviews; and settlement agreements.

Office of the Assistant Secretary of Defense (Energy, Installations, & Environment)

OASD(EI&E) is in the process of implementing three new policies. The first proposed memorandum clarifies roles and responsibilities of project sponsors, design and construction agents, and installation managers to include project-specific agreements between parties. The OASD(EI&E) proposed a second memorandum on early design and construction agent involvement for MILCON projects in support of budget submissions. In addition, OASD(EI&E) proposed a third memorandum on metrics associated with design and construction to identify projects of concern. The implementation of the OASD(EI&E)-proposed memorandums should increase project delivery success by implementing improvements in the process and addressing project delivery challenges.

Air Force Civil Engineering Center

AFCEC officials, in coordination with the Service's Office of Civil Engineers, implemented the Cost Estimating Improvement Plan to train and certify engineers and properly determine costs for MILCON projects. The Air Force Institute of Technology developed a series of courses that cover the fundamentals of cost engineering and advanced applications of the Parametric Cost Engineering System. AFCEC personnel expect that the Cost Estimating Improvement Plan will help formalize an accurate cost estimate program with a fully trained workforce. In addition, Air Force personnel added more cost estimate instruction to Air Force Institute of Technology programming and civil engineer basic courses, incorporating requirements as part of the civil engineer force. Air Force personnel will conduct program life-cycle evaluations in 3 to 5 years to determine the success of the plan.

U.S. Army Corps of Engineers Headquarters Engineering and Construction Division

In 2012, the Engineering and Construction Division (CECW-CE) at USACE Headquarters provided the ECB as initial guidance on additional management controls for projects that USACE Headquarters designated as Mega Projects. The ECB objective was to solicit initial feedback and lessons learned across USACE. The CECW-CE continued updating the ECBs through the years by providing additional management controls, such as implementing the Building Information Modeling requirements on USACE projects. The ECB 2013-18, July 29, 2013, established the requirement for the use of Building Information Modeling for design and construction projects. Building Information Modeling is a process that supports collaboration among all project stakeholders. Furthermore, Building Information Modeling is intended to improve design and construction processes, reduce errors and omissions, and enhance overall design and construction quality. The CECW-CE revisions and updates of the ECB reflect the gain of additional experience and improvements in management controls to provide effective oversight of Mega-Projects.

U.S. Army Corps of Engineers Omaha District

USACE Omaha District personnel developed two after-action reviews for the USSTRATCOM replacement facility—one for cost estimating and one for programming, estimating, and management. USACE Omaha District personnel developed an after-action review for cost estimating with the intent to evaluate the project development team and design development with respect to cost estimating. In addition, USACE Omaha District personnel developed an after-action review for programming, estimating and management with the intent to share lessons learned across USACE concerning mistakes that led to adverse pricing and subsequent scope reductions. The development of an after-action review provides USACE personnel involved with MILCON projects process improvements to better prepare, plan, resource, and execute Mega-Projects.

Furthermore, USACE Omaha District and Contractor 2 entered into a settlement agreement covering potential claims each had against the other. In the interest of completing the work in a more timely fashion and without additional delays and costs associated with litigation, the terms of the settlement discharged each party from any further liability in the areas covered by the settlement.

FY 2018 NDAA Section 2824(b) Reporting Element 3: Ongoing or Completed Proceedings or Investigations

In this section, we answer the FY 2018 NDAA requirement that the DoD OIG report on any ongoing or completed proceedings or investigation into a Government employee, prime contractor, subcontractor, or non-governmental organization that may be responsible for the delay and cost increases, and the status of such proceeding or investigation. We answered this element by meeting with USACE Omaha District Counsel. We also interpret this element to include personnel actions; therefore, we met with USACE Omaha District personnel and USSTRATCOM personnel to identify any personnel actions taken. In addition, we contacted Defense Criminal Investigative Services to inquire about investigations related to the USSTRATCOM replacement facility. Lastly, we reviewed documentation on litigation related to the USSTRATCOM replacement facility at the USACE Omaha District.

DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 3

According to District Counsel, USACE Omaha District, Contractor 3 submitted two separate contract claims against USACE, both of which are in litigation in the Armed Services Board of Contract Appeals. According to District Counsel, USACE Omaha District, the second claim (identified as Claim 2 below) is a major issue that both parties agree is one of the key causes for contractual performance and completion delays. We did not identify any ongoing investigations. Additionally, USACE Omaha District personnel and USSTRATCOM personnel stated that no adverse actions have been taken against USACE Omaha District staff or any other Government employee because of performance related to the execution of the USSTRATCOM replacement facility project. We based our summaries of Claims 1 and 2 on information provided by District Counsel, USACE Omaha District. We did not discuss the claims with Contractor 3.

Claim 1

Contractor 3 alleged that it incurred additional costs above the awarded contract value, when it had to provide higher level of drywall finishes than it believed that the contract specifications required. Specifically, the dispute centered on what level of effort was required to provide an enhanced finish to walls for the entire distance between the concrete floor and the concrete ceiling. Contractor 3 argued that it reasonably assumed that the enhanced finish was required only where the wall would be routinely visible—from the raised floor to the suspended ceiling.

However, USACE Omaha District contracting officials included specifications in the contract that discuss an enhanced level of finish as the minimum requirement at all locations and made no provisions for lesser levels at any location.

Claim 2

Contractor 3 alleged that it incurred costs related to the discovery of mold within installed ductwork in the USSTRATCOM replacement facility. Contractor 3 replaced large areas of contaminated ductwork. Contractor 3 argued that the Government's design for the ductwork was unusually prone to mold growth. The Government believes that mold growth in the ducts was a result of improper fabrication and failure to protect the materials. We discuss the delays to the project caused by the discovery of mold in the Mold Delay section of this report.

FY 2018 NDAA Section 2824(b) Reporting Element 4: Results of Proceedings or Investigations

In this section, we answer the FY 2018 NDAA requirement that the DoD OIG report whether any proceedings or investigations identified resulted in final judicial or administrative action and, if so, identify the individual or organization and the action taken. We answered this element by meeting with USACE Omaha District Counsel.

DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 4

As discussed in the DoD OIG response to FY 2018 NDAA Section 2824(b) 3, Contractor 3 filed two contract claims against USACE, which are in litigation at the Armed Services Board of Contract Appeals. Therefore, there are no results to report.

FY 2018 NDAA Section 2824(b) Reporting Element 5: Recommendations

In this section, we answer the FY 2018 NDAA requirement that the DoD OIG summarize changes the Inspector General believes may be required to the organizational structure, project management and oversight practices, policy, or authorities of a Government organization involved in MILCON projects as a result of problems identified and lessons learned from the USSTRATCOM replacement facility project.

DoD OIG Response to FY 2018 NDAA Section 2824(b) Reporting Element 5

We believe the following recommendations will improve future MILCON projects based on our observations and analysis. This audit focused solely on the USSTRATCOM replacement facility project and not MILCON projects across the DoD. We directed our recommendations to officials of the key organizations involved with the USSTRATCOM replacement facility project. We received comments regarding our recommendations from OASD (EI&E), USSTRATCOM, USACE, and the Air Force Deputy Chief of Staff for Logistics, Engineering, and Force Protection. In the following sections, we summarize and respond to the comments.

Recommendations, Management Comments, and Our Response

Recommendation 1

We recommend that the Office of the Assistant Secretary of Defense for Energy, Installations, and Environment:

- a. **Develop guidance requiring DoD organizations involved with a military construction project to draft a charter early in the project life cycle, focusing on communications and accountability by including at least the following in the project management plan.**
 1. **Establishment of a Program Management Office for each project where applicable.**
 2. **Establishment of performance goals.**
 3. **Identification of roles and responsibilities for key segments of construction including but not limited to, budgetary submissions, planning, and execution.**
 4. **Establishment of a formal approval process for change orders.**

Office of the Assistant Secretary of Defense for Energy, Installations, and Environment Comments

The Assistant Secretary of Defense for Energy, Installations, and Environment agreed with the recommendation and stated that OASD(EI&E) is taking steps to develop the key facets of the recommendation and will provide an update upon completion.

Our Response

Comments from the Assistant Secretary of Defense for Energy, Installations, and Environment addressed the intent of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation upon confirmation that the guidance has been developed and distributed accordingly.

- b. Develop guidance establishing metrics that include financial risk management parameters and triggers including, but not limited to, threshold changes to scope, cost, or timeline; emerging issues; dispute resolution; and statutory reporting requirements when higher headquarters engagement is required.**

Office of the Assistant Secretary of Defense for Energy, Installations, and Environment Comments

The Assistant Secretary of Defense for Energy, Installations, and Environment agreed with the recommendation and stated that OASD(EI&E) is taking steps to develop the key facets of the recommendation and will provide an update upon completion.

Our Response

Comments from the Assistant Secretary of Defense for Energy, Installations, and Environment addressed the intent of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation upon confirmation that the guidance has been developed and distributed accordingly.

Recommendation 2

We recommend that the Commander, U.S. Strategic Command:

- a. Complete an after-action review following the construction of the U.S. Strategic Command replacement facility.**

Commander, U.S. Strategic Command Comments

The USSTRATCOM Commander agreed to conduct a comprehensive after-action review following the completion of the transition of all missions and personnel to the USSTRATCOM replacement facility. The USSTRATCOM Commander stated that, based on current USACE estimates, completion of the military construction portion of the project is anticipated to be FY 2020. The Commander further stated that the after-action review will look at all phases of the program, including construction, security, information technology installation, command and control

system installation, mission transition, and personnel transition. Additionally, USSTRATCOM staff will continue to meet routinely with other DoD and intelligence community entities to share interim lessons learned that can facilitate the transition of all mission capabilities and personnel to the USSTRATCOM replacement facility.

Our Response

Comments from the USSTRATCOM Commander addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation upon confirmation that the USSTRATCOM Commander has conducted an after-action review following the completion of the transition of all missions and personnel to the USSTRATCOM replacement facility.

- b. Review the administrative actions of individuals involved in the cost increases or schedule delays of the U.S. Strategic Command Facility Construction Project and initiate action as appropriate.**

Commander, U.S. Strategic Command Comments

The USSTRATCOM Commander agreed, stating that if formal proceedings determine any USSTRATCOM personnel should be held directly accountable for increases in cost or schedule delays, the appropriate administrative actions will be taken. The Commander further stated that to date, no evidence has been presented that such action is required.

Our Response

Comments from the USSTRATCOM Commander addressed the specifics of the recommendation; therefore, the recommendation to review administrative actions of individuals involved in the USSTRATCOM facility construction project is resolved but will remain open. We will close the recommendation upon confirmation that the USSTRATCOM Commander has determined that any formal proceedings related to the USSTRATCOM facility construction project have concluded and no administrative action is necessary.

Recommendation 3

We recommend that the Commanding General, U.S. Army Corps of Engineers:

- a. Issue guidance to implement lessons learned from the U.S. Strategic Command Facility Construction Project into other military construction projects that contain DoD-unique requirements.**

Commanding General, U.S. Army Corps of Engineers Comments

The USACE Commanding General agreed, stating that ECB 2016-16 provides guidance for Mega-Projects, including a process to share lessons learned across the enterprise with project delivery teams. Furthermore, Headquarters USACE issued a memorandum dated July 28, 2017, "Interim Guidance on the Implementation of the Military Missions Lessons Learned SharePoint Site." The memorandum provides guidance on capturing and sharing after-action reviews and lessons learned for military missions lines of business. The Commanding General stated that lessons learned identified in the USSTRATCOM after-action review will be entered in the Military Missions Lessons Learned tool.

Our Response

Comments from the USACE Commanding General addressed the specifics of the recommendation; therefore, the recommendation to issue guidance to implement lessons learned from the USSTRATCOM facility construction project into other military construction projects is resolved but will remain open. We will close the recommendation upon confirmation that the USACE Commanding General has provided evidence that identified lessons learned have been entered into the Military Missions Lessons Learned tool.

- b. Issue a memorandum directing contracting personnel involved with the U.S. Strategic Command Facility Construction Project to issue annual past performance evaluations for contractors in the Contractor Performance Assessment Reporting System as required by Federal Acquisition Regulation subpart 42.15.**

Commanding General, U.S. Army Corps of Engineers Comments

The USACE Commanding General agreed to issue a memorandum directing contracting personnel to comply with FAR subpart 42.15 for the USSTRATCOM Facility Construction Project no later than May 31, 2018.

Our Response

Comments from the USACE Commanding General addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation upon confirmation that the USACE Commanding General has issued a memorandum directing contracting personnel to comply with FAR subpart 42.15 for the USSTRATCOM Facility Construction Project.

- c. **Review the administrative actions of individuals involved in the cost increases or schedule delays of the U.S. Strategic Command Facility Construction Project and initiate action as appropriate.**

Commanding General, U.S. Army Corps of Engineers Comments

The USACE Commanding General agreed and stated that, to date, administrative actions have been in accordance with USACE internal management controls and business processes and no further action is required.

Our Response

Comments from the USACE Commanding General addressed the specifics of the recommendation; therefore, the recommendation to review the administrative actions of individuals involved in the USSTRATCOM facility construction project is resolved and closed.

- d. **Complete an after-action review following the construction of the U.S. Strategic Command replacement facility.**

Commanding General, U.S. Army Corps of Engineers Comments

The USACE Commanding General agreed to conduct an after-action review for internal DoD use within 60 days of the completion of the construction of the USSTRATCOM replacement facility.

Our Response

Comments from the USACE Commanding General address the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation upon confirmation that the USACE Commanding General completed an after-action review following the construction of the USSTRATCOM replacement facility.

Recommendation 4

We recommend that the Commander, U.S. Air Force Civil Engineer Center, conduct program life-cycle evaluations to determine the success of the Cost Estimating Improvement Plan.

Commander, U.S. Air Force Civil Engineer Center

The Lieutenant General, DCS/Logistics, Engineering, and Force Protection responding for the AFCEC Commander agreed and stated that the Cost Estimating Improvement Program is underway and includes methods for life-cycle evaluation to measure success.

Our Response

Comments from the Lieutenant General, DCS/Logistics, Engineering, and Force Protection addressed the intent of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation upon confirmation that the Air Force Civil Engineer Center has evaluated the success of the Cost Estimating Program.

Appendix A

Scope and Methodology

We conducted this performance audit from January through May 2018 in accordance with generally accepted government auditing standards except for evaluating internal controls. Because of time constraints, we did not determine the adequacy of the internal controls over the USSTRATCOM replacement facility project. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Revised Announced Audit Objective

We revised the announced audit objective for the “Audit of the United States Strategic Command Facility Construction Project,” (Project No. D2018-D000CG-0077.000) because of time constraints set forth in the Public Law 115-91, “National Defense Authorization Act for Fiscal Year 2018,” section 2824, “Report on Cost Increase and Delay Related to USSTRATCOM Command and Control Facility Project at Offutt Air Force Base.” Public Law 115-91 gave the DoD Inspector General 180 days from enactment to submit a report on the schedule delays and cost increases related to the construction of the USSTRATCOM replacement facility.

Announced Objective

Our objective is to determine whether the DoD effectively managed the USSTRATCOM Headquarters Facility Construction project. Specifically, we will review the requirements development, design suitability, contractor performance, and oversight of the contractors.

Revised Objective

We performed this audit pursuant to Public Law 115-91, “National Defense Authorization Act for Fiscal Year 2018,” section 2824, “Report on Cost Increase and Delay Related to USSTRATCOM (U.S. Strategic Command) Command and Control Facility Project at Offutt Air Force Base.” Section 2824 requires the DoD Office of Inspector General to report on five elements relating to the military construction of the U.S. Strategic Command (USSTRATCOM) Command and Control Facility at Offutt Air Force Base, Nebraska, no later than June 10, 2018.

Review of Documentation and Interviews

We reviewed the contracts USACE Omaha District contracting personnel awarded for the design and the construction of the USSTRATCOM replacement facility. Contracting personnel awarded the design contract, W9128F-10-C-0001, on October 16, 2009, for \$3.1 million. Contracting personnel awarded the construction contract, W9128-12-C-0023, on August 16, 2012, for \$524.4 million. USACE Omaha District contracting personnel amended the solicitation for the construction contract 29 times before awarding the contract. Additionally, we reviewed modifications, daily quality assurance and quality control reports, and Level 1 inspection logs for the construction contract.

Solicitation Amendments and Contractor 3’s Proposals

We reviewed all 29 amendments to the construction contract solicitation. We reviewed the amendments to identify major changes, including the removal or addition of items in the contract and the change in square footage. Furthermore, we reviewed and compared the Government estimates to Contractor 3’s proposal amounts for each proposal submittal. USACE Omaha District requested proposals four times throughout the amendment process. See Table 6 for the comparison of Contractor 3’s proposal amount to the Government estimate, the description of changes, and the change in square footage.

~~(FOUO)~~ Table 6. Comparison of Contractor 3's Proposal Amounts and the Government Estimates for Amendments with Significant Scope Changes

Amendments	Date of Proposals & Government Estimate	Contractor 3's Proposal Amount (Basic + Options)	Government Estimate Total of Basic + Options	Description of Changes	SF Reduction
1-11	11/15/2011	[REDACTED]	\$538,308,717	Administrative changes for initial proposals	-
12-20	4/30/2012	[REDACTED]	562,728,333	Remove 4th floor North Bar; lower the atrium roof 1 level; remove IT communication system	78,000 ¹
21-22	5/21/2012	[REDACTED]	599,734,900	Remove 3 vertical bays and landscaping; change parking and Visitor Control Center to contract options	68,400 ²
23-29	8/3/2012	(\$524,445,324 + \$0) \$524,445,324	491,313,767	Remove 1 vertical bay; remove 2 diesel generators; add parking and Visitor Control Center back to basic contract with reduced scope	22,800 ³

¹ USACE Omaha District personnel state in the after-action review, amendment 13 reduced the scope of the project by 78,000 SF.

² USACE Omaha District personnel state in the after-action review, amendment 21 reduced the scope of the project by 68,400 SF.

³ USACE Omaha District personnel state in the after-action review, amendment 27 reduced the scope of the project by 22,800 SF.

Source: The DoD OIG.

Modifications

We queried the Federal Procurement Data System–Next Generation user account on January 26, 2018, and identified that USACE Omaha District contracting personnel issued 1,054 contracting actions on the construction contract with a total exercised value of \$604.5 million. We excluded modifications with a base value including exercised options of less than \$150,000, resulting in a sample of 77 modifications. USACE Omaha District contracting personnel provided us with these 77 modifications and all other modifications associated with them. We also requested to review modifications outside of this sample that related to change in period of performance and the recovery of contingency

funds. In total, we reviewed 184 contracting actions totaling \$510.4 million that USACE Omaha District contracting personnel issued from the construction contract. Of the 184 contracting actions, 173 were MILCON modifications, 6 were incremental funding actions, 3 were non-MILCON modifications, and 2 were MILCON and non MILCON modifications. We reviewed the 184 contracting action files to determine the:

- value they increased or decreased the contract by individually and as a series;
- Government estimated cost or savings versus the actual cost or savings;
- modification description; and
- delay, if any, the modification caused to the construction completion date.

Quality Assurance and Quality Control Daily Reports

We selected and reviewed 4 months of daily quality assurance and quality control reports issued by both the contractor and USACE Omaha District personnel and stored in the RMS. This sample consisted of 244 total daily reports, dated from September 1, 2017, through December 31, 2017. We reviewed each daily report for completeness and accuracy. To further test the accuracy of the RMS online system, we identified three additional dates throughout the life of the contract on which significant events took place and one additional date as a random test. We identified three significant events: a flood on January 24, 2018; a fire on April 20, 2017; and the identification of mold on September 9, 2015. We also tested a random date, July 14, 2017. For each date, we searched the RMS database and obtained detailed quality assurance and quality control reports describing the events of that day.

Inspection Logs

We also reviewed 123 Level 1 inspection logs—specifically, the wall close-in category. We reviewed the wall close-in inspection logs to identify common discrepancies and whether the Contractor 3 passed the inspection, did not pass, or was still pending review.

Furthermore, we determined how much time passed from the date the discrepancies were identified during the inspection until the date Contractor 3's subcontractor corrected the discrepancies.

Guidance Reviewed

We also reviewed the following documentation.

- FAR Part 36, “Construction and Architect-Engineer Contracts”
- FAR Part 42, “Construction Administration and Audit Services,” Subpart 42.15, “Contractor Performance Information”
- DFARS Part 236, “Construction and Architect Engineer Contracts,” Subpart 236.6, “Architect-Engineer Services”
- DoD FMR 7000.14-R, volume 2B, chapter 6, “Military Construction/Family Housing Appropriations”
- Unified Facilities Criteria
- USACE Engineer Regulation 5-1-11, “U.S. Army Corps of Engineers Business Process,” January 12, 2007
- USACE ECBs

Interviewed Personnel

We interviewed personnel from the OASD(EI&E), USSTRATCOM, USACE Headquarters, USACE Omaha District, AFCEC, and 55 CES to determine their roles in the planning, design, and construction of the USSTRATCOM replacement facility. We also interviewed personnel from the Department of the Air Force J4 and DTRA regarding their involvement with the construction of the USSTRATCOM replacement facility project. Specifically, we met with personnel from contracting, general counsel, quality assurance, project management, and engineering.

Use of Computer-Processed Data

We did not use computer-processed data to perform this audit.

Use of Technical Assistance

We used assistance from the DoD OIG Technical Assessments Directorate to review the USSTRATCOM replacement facility modifications and determine whether each modification occurred as a result of a design deficiency.

Prior Coverage

No prior coverage has been conducted on the USSTRATCOM replacement facility during the last 5 years.

Appendix B

Construction Contract Modifications Reviewed

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
MILCON Modifications						
1	R00009	P00002	11/19/2012	\$4,000.00	V	Revise Permanent Earth Retention System Wall Elevation
2	R10009	A00002	12/10/2012	14,000.00	1	Revise Permanent Earth Retention System Wall Elevation
3	R20009	A00003	12/17/2012	136,820.00	1	Revise Permanent Earth Retention System Wall Elevation
4	R30009	P00003	3/22/2013	436,888.00	1	Revise Permanent Earth Retention System Wall Elevation
5	R00014	P00006	<i>Modification P00006 was Cancelled Before Being Issued</i>			
6	R00027	P00013	1/31/2014	(1,183,979.00)	V	Remove Mezzanine Structure and Equipment
7	R00055	P00022	4/10/2014	332,643.00	1	Electrical Conformance Items
8	R00057	A00031	8/13/2013	181,262.00	1	Revise Amps Interrupting Capacity Rating of Electrical Equipment From Advertised Set to Conformed Set
9	R00065	A00032	8/14/2013	166,095.00	1	Wall Loading
10	R00076	A00057	10/28/2013	90,000.00	1	Storm Sewer Connections—Loading Dock
11	R10076	A00064	11/13/2013	(29,282.00)	1	Storm Sewer System Revisions
12	R00079	A00039	9/03/2013	157,429.00	1	Structural Changes in Volume 2, North Bar, Areas A1, A2, and A3 of the Conformed Drawing
13	R00084	A00062	11/04/2013	162,661.00	1	Retaining Wall Changes
14	R00093	P00019	3/10/2014	438,476.00	1	Mechanical Conformance Resolution—Mission Support

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
15	R00097	A00072	12/04/2013	50,000.00	1	Resolve Mission Support Lower Level 2 Underslab Elevations Issues
16	R10097	A00179	7/23/2014	158,735.00	1	Mission Support Lower Level 2 Underslab Plumbing Connections
17	R00098	A00126	4/04/2014	13,000.00	1	HEMP Lower Level 4 Underslab Plumbing Elevations
18	R10098	A00180	7/24/2014	153,145.00	1	HEMP Lower Level 4 Underslab Plumbing Elevations
19	R00106	P00008	11/08/2013	154,531.00	1	Structural Changes for the Framing of Passenger Elevators in North and South Bar of the Conformed Drawing
20	R00119	P00041	9/25/2014	918,350.00	1	Wall Type Conformance and Revisions
21	R00127	A00042	9/17/2013	20,000.00	V	Mission Support Lower Level 2 Overhead Conflict Resolution
22	R10127	A00066	11/15/2013	70,000.00	V	Mission Support Lower Level 2 Overhead Conflict Resolution
23	R20127	A00106	2/27/2014	127,000.00	1	Mission Support Lower Level 2 Overhead Conflict Resolution
24	R30127	P00083	12/04/2015	2,686,171.00	1	Mission Support Lower Level 2 Overhead Conflict Resolution
25	R40127	P00089	1/27/2016	0	1	Mission Support Lower Level 2 Overhead Conflict Resolution
26	R00131	P00037	8/21/2014	0	1	Cable Tray Normalization, Lower Level 1 and 2
27	R10131	P00066	7/15/2015	1,763,037.00	1	Cable Tray Normalization, Lower Level 1 and 2
28	R20131	P00077	9/25/2015	0	-	Cable Tray Normalization, Lower Level 1 and 2
29	R00143	A00115	3/18/2014	368,556.00	1	Conformed Document Review

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
30	R00153	A00070	12/02/2013	0	E	Extends the time for performance allowed for delays caused by adverse weather in excess of anticipated delays during the period August 16, 2012, through October 31, 2013
31	R00168	A00071	12/04/2013	457,080.00	V	Mission Support Pier Overruns
32	R00211	P00090	2/18/2016	155,865.00	1	Revise Corridor Ceiling Heights Level 1-Level 3
33	R10211	A00853	9/18/2017	121,977.00	V	Revise Corridor Ceiling Heights Level 1-Level 3
34	R00218	A00452	11/05/2015	357,490.00	1	Tempest Vault Utilities
35	R00219	A00121	3/28/2014	(46,946.00)	1	Delete Flywheel Circuits
36	R10219	A00122	3/31/2014	0	9	Delete Flywheel Circuits
37	R20219	P00021	4/01/2014	0	9	Corrects the Action Obligation Amount on the Contract Action Report in the Omaha District Database
38	R00236	A00461	11/16/2015	330,359.00	1	HEMP Smoke Control
39	R00249	A00189	8/08/2014	0	V	Doors/Frames/Hardware Mission Support Lower Level 1-2
40	R10249	A00240	10/20/2014	0	V	Doors/Frames/Hardware Mission Support Lower Level 1-2
41	R20249	A00256	11/18/2014	0	V	Doors/Frames/Hardware Mission Support Lower Level 1-2
42	R30249	P00050	1/05/2015	0	V	Doors/Frames/Hardware Mission Support Lower Level 1-2
43	R40249	P00084	12/04/2015	290,492.00	V	Doors/Frames/Hardware Mission Support Lower Level 1-2
44	R00251	A00238	10/17/2014	0	1	Door and Hardware Revisions Mission Support Level 1-4
45	R10251	A00249	10/31/2014	0	9	Door and Hardware Revisions Mission Support Level 1-4

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
46	R20251	A00257	11/19/2014	0	1	Door and Hardware Revisions Mission Support Level 1-4
47	R30251	P00051	1/06/2015	0	1	Door and Hardware Revisions Mission Support Level 1-4
48	R40251	P00075	9/10/2015	182,000.00	1	Door and Hardware Revisions Mission Support Level 1-4
49	R50251	P00081	11/16/2015	267,903.00	1	Door and Hardware Revisions Mission Support Level 1-4
50	R00253	A00119	3/24/2014	189,435.46	7	HEMP Drilled Pier Overruns
51	R10253	A00120	3/26/2014	0	9	HEMP Drilled Pier Overruns
52	R00265	P00029	5/20/2014	77,732.45	4	Added Communication Conduit to HEMP Data Centers
53	R10265	P00078	10/26/2015	766,147.55	4	Added Communication Conduit to HEMP Data Centers
54	R00280	A00329	4/16/2015	162,188.00	1	Electric Revisions for Mechanical Equipment
55	R00283	A00546	4/07/2016	30,000.00	1	Revise East/West Portal Walls
56	R10283	P00113	11/23/2016	372,503.00	1	Revise East/West Portal Walls
57	R00295	A00484	12/18/2015	363,103.00	1	Revise Polished Plaster Louvers
58	R00303	A00417	9/15/2015	274,931.00	1	Revise First Floor Corridor Design to Meet Safety Requirements
59	R00304	A00311	3/02/2015	229,475.00	1	Penthouse Fan Coil Units and Unit Heaters
60	R10304	A00312	3/03/2015	0	1	Replaces Paragraph 1, Scope, on the Parent Modification
61	R00306	A00231	10/09/2014	20,000.00	1	Electric Power Coordination Lower Level 1, All Mission Support and HEMP Grounding
62	R10306	A00363	7/14/2015	162,954.00	1	Electric Power Coordination Lower Level 1, All Mission Support and HEMP Grounding

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
63	R00312	P00036	7/18/2014	250,000.00	1	Coordination Study Recommendation Implementation
64	R10312	P00043	10/17/2014	63,413.00	1	Coordination Study Recommendation Implementation
65	R00324	A00173	7/09/2014	240,000.00	V	Add Building Information Modeling Coordination Team For Level 3
66	R10324	A00292	1/29/2015	(55,299.00)	V	Add Building Information Modeling Coordination Team For Level 4
67	R00342	A00259	11/20/2014	0	1	Revise Walls at Column Enclosures
68	R10342	A00291	1/28/2015	0	1	Definitize Change CR342 Walls At Columns
69	R20342	A00334	4/29/2015	162,917.00	1	Definitize Change CR342 Walls At Columns
70	R00353	P00086	1/07/2015	302,663.00	1	Revise Wall Types Level 1-4
71	R00354	P00039	9/19/2014	582,936.00	1	Harden Cooling Tower Feeds From HEMP
72	R10354	P00087	1/08/2016	(137,442.00)	1	Harden Cooling Tower Feeds From HEMP
73	R00355	A00562	4/22/2016	198,650.00	1	Revise Power Monitoring System
74	R00363	A00248	10/29/2014	50,500.00	1	Wall Revisions and Mechanical Penetrations
75	R10363	P00117	1/26/2017	204,077.00	1	Wall Revisions and Mechanical Penetrations
76	R00368	A00236	10/16/2014	50,000.00	1	Revise Slab On Deck—Progressive Collapse—Concrete Reinforcement Of Mission Support Levels
77	R10368	A00254	11/14/2014	50,000.00	1	Slab On Deck Progressive Collapse Reinforcement
78	R20368	P00049	12/30/2014	400,000.00	1	Slab On Deck Progressive Collapse Reinforcement
79	R30368	P00053	2/04/2015	1,950,000.00	1	Slab On Deck Progressive Collapse Reinforcement
80	R40368	P00072	8/21/2015	675,062.00	1	Slab On Deck Progressive Collapse Reinforcement
81	R50368	P00079	11/03/2015	1,724,840.00	1	Slab On Deck Progressive Collapse Reinforcement

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
82	R60368	P00080	11/03/2015	0	1	Slab On Deck Progressive Collapse Reinforcement
83	R00375	A00261	11/21/2014	19,000.00	1	Wall Revisions and Mechanical Penetrations Level 1-3
84	R10375	A00273	12/22/2014	20,000.00	1	Wall Revisions and Mechanical Penetrations Level 1-3
85	R20375	A00324	3/16/2015	30,000.00	1	Wall Revisions and Mechanical Penetrations Level 1-3
86	R30375	P00060	5/28/2015	50,000.00	1	Wall Revisions and Mechanical Penetrations Level 1-3
87	R40375	P00114	12/16/2016	366,000.00	1	Wall Revisions and Mechanical Penetrations Level 1-3
88	R00379	A00282	1/14/2015	184,141.00	4	Security Personnel Trailer
89	R10379	A00283	1/16/2015	0	4	Security Personnel Trailer
90	R00386	P00094	4/18/2016	544,581.00	4	Revision to Office Layout at Various Locations At Lower Levels 1-2 and Levels 1-3 in the Mission Support Building
91	R00389	A00263	11/25/2014	70,000.00	1	Add Steel Plates to Lower Level 1 Beams
92	R10389	A00272	12/18/2014	0	1	Add Steel Plates to Lower Level 1 Beams
93	R20389	P00063	6/30/2015	584,035.00	1	Add Steel Plates to Lower Level 1 Beams
94	R00406	A00313	3/04/2015	86,000.00	1	Fire Extinguisher, Electrical Panel Detail, and Wall Changes
95	R10406	A00351	6/10/2015	13,000.00	1	Fire Extinguisher, Electrical Panel Detail, and Wall Changes
96	R20406	A00435	10/09/2015	61,000.00	1	Fire Extinguisher, Electrical Panel Detail, and Wall Changes
97	R30406	P00085	12/14/2015	30,000.00	1	Fire Extinguisher, Electrical Panel Detail, and Wall Changes

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
98	R40406	P00106	9/20/2016	573,556.00	1	Fire Extinguisher, Electrical Panel Detail, and Wall Changes
99	R00408	A00496	1/11/2016	10,000.00	4	Collaborative and Visual Environment Multi-Purpose Room Revisions
100	R10408	A00702	11/10/2016	164,103.00	4	Collaborative and Visual Environment User Changes
101	R20408	A00786	3/20/2017	20,000.00	V	Finish Discrepancies
102	R30408	A00831	7/05/2017	0	V	Finish Discrepancies
103	R00409	A00361	7/13/2015	75,000.00	4	Revise Conference Audio/Visual Rooms and Equipment
104	R10409	A00404	8/27/2015	0	4	Revise Conference Audio/Visual Rooms and Equipment
105	R20409	P00108	10/03/2016	480,338.00	4	Revise Conference Audio/Visual Rooms and Equipment
106	R00413	A00309	2/26/2015	80,000.00	1	Revise H3 Footing Depth
107	R10413	P00088	1/20/2016	428,129.00	1	Revise H3 Footing Depth
108	R00427	P00058	5/21/2015	665,450.00	1	Mechanical Changes for Vertical Deflection
109	R10427	P00062	6/15/2015	0	1	Mechanical Changes for Vertical Deflection
110	R20427	P00074	9/04/2015	0	1	Mechanical Changes for Vertical Deflection
111	R30427	P00082	11/17/2015	0	1	Mechanical Changes for Vertical Deflection
112	R40427	P00091	3/22/2016	0	1	Mechanical Changes for Vertical Deflection
113	R50427	P00101	7/11/2016	503,547.00	1	Mechanical Changes for Vertical Deflection
114	R00433 ²	P00065	7/01/2015	44,932.00	1	Change Conduit Protective Distribution System Designations and Alarm Protective Distribution System Trays
115	R10433	P00068	7/21/2015	0	1	Clarify Protective Distribution System/Alarm Protective Distribution System Conduit

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
116	R00464	A00368	7/17/2015	0	4	Joint Occupancy Agreement
117	R00469	A00698	11/07/2016	184,119.00	4	Visitor Control Center Beddown Changes
118	R00476	A00453	11/05/2015	20,000.00	1	Framing for Openings Larger Than 12 Feet
119	R10476	A00491	12/30/2015	0	1	Framing for Openings Larger than 12 Feet
120	R20476	A00519	2/24/2016	54,426.00	1	Framing for Openings Larger than 12 Feet
121	R00478	A00634	8/05/2016	100,000.00	1	Access to Elevator 12 and 13 Governor
122	R10478	A00677	10/14/2016	301,867.00	1	Add Access Ladder To Elevator 12 and 13 Governor
123	R00505	P00093	4/07/2016	718,614.00	1	Add HEMP Catwalk Penetration Details
124	R00513	A00486	12/22/2015	100,000.00	4	Industrial Control System Security Technical Implementation Guide Implementation
125	R10513	A00506	1/28/2016	0	4	Industrial Control System Security Technical Implementation Guide Implementation
126	R20513	P00096	5/31/2016	200,000.00	4	Industrial Control System Security Technical Implementation Guide Implementation
127	R30513	P00099	6/22/2016	0	4	Industrial Control System Security Technical Implementation Guide Implementation
128	R40513	A00754	2/13/2017	(64,657.00)	4	Industrial Control System Security Technical Implementation Guide Implementation
129	R00514	A00553	4/13/2016	183,224.00	1	Added Functionality
130	R00530	A00518	2/23/2016	70,000.00	1	Fire Pump Variable Frequency Drive and Power Revisions
131	R10530	A00568	5/02/2016	0	1	Fire Pump Variable Frequency Drive and Power Revisions
132	R20530	A00623	8/01/2016	0	1	Fire Pump Variable Frequency Drive and Power Revisions
133	R30530	P00107	9/21/2016	100,000.00	1	Fire Pump Variable Frequency Drive and Power Revisions

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
134	R40530	A00745	2/01/2017	215,108.00	1	Fire Pump Variable Frequency Drive and Power Revisions
135	R50530	A00755	2/16/2017	0	1	Fire Pump Variable Frequency Drive and Power Revisions
136	R00535	A00476	12/10/2015	0	E	Weather Time Extension (November 2013 to September 2015)
137	R00539	A00582	5/17/2016	39,000.00	4	Ceiling Removed From CR408
138	R10539	A00637	8/10/2016	193,738.00	4	Ceiling Removed From CR408
139	R00587	P00104	9/01/2016	150,000.00	1	Mullion Cap Detail Revisions
140	R10587	P00115	1/20/2017	200,000.00	1	Mullion Cap Detail Revisions
141	R20587	A00797	4/04/2017	134,774.00	1	Mullion Cap Detail Revisions
142	R00601	P00097	6/13/2016	180,000.00	1	-48 volts Direct Current Cable Tray and Phase 1 Restructure
143	R10601	P00102	7/26/2016	0	1	-48 volts Direct Current Cable Tray and Phase 1 Restructure
144	R20601	P00133	1/30/2018	330,535.00	-	-48 volts Direct Current Cable Tray and Phase 1 Restructure
145	R00604	A00575	5/11/2016	13,000.00	1	Relocate Electrical Panelboards and -48 volts Direct Current Panels
146	R10604	A00610	7/08/2016	67,000.00	1	Relocate Electrical Panelboards and -48 volts Direct Current Panels
147	R20604	A00700	11/09/2016	79,694.00	1	Relocate Electrical Panelboards and -48 volts Direct Current Panels
148	R00617	A00646	8/19/2016	29,000.00	1	Provide Additional Bent Plates at Full Height Atrium Wall and Remove Soffit Around Beam at Roof in One Location

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
149	R10617	A00682	10/21/2016	77,368.00	1	Provide Additional Bent Plates at Full Height Atrium Wall and Remove Soffit Around Beam at Roof in One Location
150	R00625	A00618	7/26/2016	150,000.00	V	Horizontal Roof Drain Insulation
151	R10625	A00705	11/16/2016	(41,834.00)	V	Horizontal Roof Drain Insulation
152	R00633	A00617	7/25/2016	0	E	April 2016 Weather Days and Correction to Weather Modification R00535
153	R00644	P00127	10/30/2017	350,000.00	1	Motion Sensors for Unsecured Tray
154	R10644	P00128	11/01/2017	0	1	Motion Sensors for Unsecured Tray
155	R00658	P00112	11/14/2016	0	V	Restructure Phase 4 and Phase 5 Requirements
156	R00660	P00103	8/15/2016	125,000.00	1	Anchor corrections for International Building Code Compliance
157	R10660	P00105	9/19/2016	265,000.00	1	Anchor corrections for International Building Code Compliance
158	R20660	P00110	10/20/2016	185,000.00	1	Anchor corrections for International Building Code Compliance
159	R00665	A00668	9/30/2016	13,000.00	1	Automated Personnel Data System SCIF Vestibules
160	R10665	A00749	2/03/2017	0	1	Automated Personnel Data System SCIF Vestibules
161	R20665	A00905	11/17/2017	84,694.00	1	Provide Secure Cable Tray
162	R00683	P00122	8/28/2017	3,496,777.00	V	Condenser Pipe Insulation
163	R00688	P00116	1/26/2017	400,000.00	1	Request for Equitable Adjustment -48 volts Direct Current Panels Feeders and Power Distribution Unit Terminations
164	R10688 ³	P00124	10/10/2017	326,408.00	1	Request for Equitable Adjustment -48 volts Direct Current Panels Direct Current Feeders and Power Distribution Unit Terminations
165	R00692	A00796	4/03/2017	60,000.00	1	Install Missing Return Air Ducts

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
166	R10692	A00910	12/05/2017	91,093.00	-	Install Missing Return Air Ducts
167	R00704	A00839	7/18/2017	153,767.00	1	Plumbing piping freeze protection
168	R00725	A00899	11/08/2017	213,662.00	V	Provide breakers and monitoring for select breakers
169	R00744	A00795	3/30/2017	200,000.00	1	Fire Paver Base Course
170	R10744	A00857	9/18/2018	(190,444.00)	1	Fire Paver Base Course
171	R00756	A00842	8/11/2017	110,616.00	4	Add Flag Poles With Lighting and Sleeves for Future Irrigation and Power
172	R00776	P00132	1/10/2018	140,000.00	-	Duct Detectors for Mission Support Stairway Fans
173	R10776	P00134	2/09/2018	3,000,000.00	-	Duct Detectors for Mission Support Stairway Fans and Extend Building Completion Date 75 Working Days
174	R00777	A00845	8/16/2017	75,000.00	1	Visitor Control Center Interior Framing Changes
175	R00782	A00893	11/01/2017	176,334.00	1	Damper End Switch Status to Fire Alarm
Total of MILCON Modifications				\$37,030,239.46		
Non-MILCON Modifications						
114	R00433 ²	P00065	7/01/2015	\$1,099,832.00	Non-MILCON Modifications did not have reason codes	Change Conduit Protective Distribution System Designations and Alarm Protective Distribution System Trays
164	R10688 ³	P00124	10/10/2017	45,081.00		Request for Equitable Adjustment -48 volts Direct Current Panels Direct Current Feeders and Power Distribution Unit Terminations
176	R00056	P00015	2/18/2014	17,728,422.00		Furnish Uninterruptible Power Supply Output Distribution Switchgear
177	R00136	P00020	3/25/2014	21,347,846.00		Security Systems Equipment
178	R00160	P00014	2/03/2014	466,653.00		Uninterruptible Power Supply and -48 volt Direct Current Shop Drawings
Total Non-MILCON Modifications				\$40,687,834.00		

See the final page of Appendix B for the table notes.

Construction Contract Modifications Reviewed (cont'd)

	R# ¹	Modification	Date	Amount	Reason Code	Description of Modification
179	-	P00047	12/29/2014	\$43,519,395.00	-	FY 2014 Incremental Funding
180	R00001	P00001	8/16/2012	(200,000.00)	9	Correct Incremental Funded Amount
181	R00083	P00004	5/30/2013	126,338,862.00	9	FY 2013 Incremental Funding
182	R00314	P00033	6/18/2014	83,254,493.20	9	FY 2014 Incremental Funding
183	R00480	P00069	7/24/2015	179,770,400.41	9	FY 2015 Incremental Funding
184	R00971	P00048	12/29/2014	0	9	FY 2014 Incremental Funding—Correction to P00047 Contract Value
Total of Incremental Funding Modifications				\$432,683,150.61		
Net Total of all Modifications Reviewed				\$510,401,224.07		

¹ U.S. Army Corps of Engineers Omaha District provides an “R” number to each modification to organize modification series. Specifically, a modification series consists of multiple relating modifications issued at different times.

² R00433 – Modification P00065 increased costs to both MILCON and non-MILCON lines of accounting; therefore, we kept the same number to avoid double-counting the modification.

³ R10688 – Modification P00124 increased costs to both MILCON and non-MILCON lines of accounting; therefore, we kept the same number to avoid double-counting the modification.

Reason Code Definitions:

- 1 Engineering Changes—includes possible and confirmed contractor fault
- 4 User Changes—discretionary
- 7 Differing Site Conditions Not Readily Identifiable by Thorough Site Investigation
- 9 Administrative Change
- E Excusable Delay for No Fault
- V Construction Changes Necessary to Complete Contract

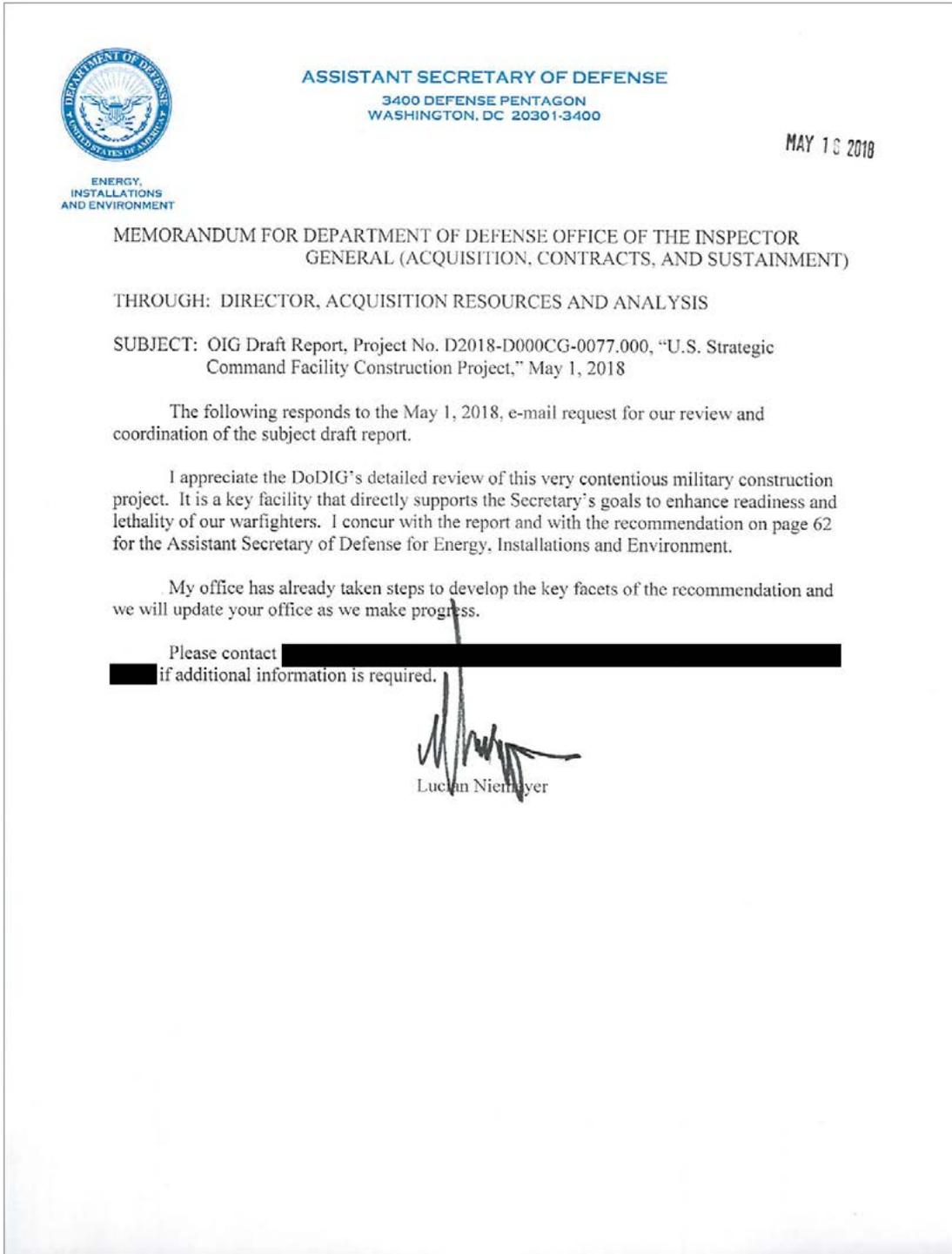
Acronyms

- HEMP High Altitude Electromagnetic Pulse
- MILCON Military Construction
- SCIF Sensitive Compartmented Information Facility

Source: The DoD OIG.

Management Comments

Assistant Secretary of Defense for Energy, Installations and Environment



U.S. Strategic Command



DEPARTMENT OF DEFENSE
UNITED STATES STRATEGIC COMMAND

Reply To:
USSTRATCOM/J0CC
901 SAC BLVD STE 2A1
OFFUTT AFB NE 68113-6000

11 May 18
SM# 1034-18

MEMORANDUM FOR THE INSPECTOR GENERAL DEPARTMENT OF DEFENSE

Subject: USSTRATCOM Response to Draft Report on U.S. Strategic Command Facility Construction Project (Project No. D2018-D000CG-0077.000)

References: (a) Department of Defense Directive 4270.5, Military Construction
(b) Air Force Instruction 32-1021, Planning and Programming Military Construction (MILCON) Projects
(c) Air Force Instruction 32-1023 Designing and Constructing Military Construction Projects

1. I have reviewed the draft findings and recommendations of the report which your team has created in accordance with Public Law 115-91, "National Defense Authorization Act for Fiscal Year 2018," section 2824, "Report on Cost Increase and Delay Related to STRATCOM (U.S. Strategic Command) Command and Control Facility Project at Offutt Air Force Base." I thank you and your team for your hard work and diligence in an effort to shed light on the issues that have affected the Command and Control Facility MILCON project.

2. With regard to the DoD Inspector General's specific recommendations, USSTRATCOM, will take the following actions:

a. Recommendation 2.a: USSTRATCOM will conduct a comprehensive after action review following completion of the transition of all missions and personnel to the new facility, anticipated to be some time in Fiscal Year 2020 based on current USACE estimates for completion of the MILCON portion of the project. This review will look at all phases of the program, including construction, security, information technology installation, command and control system installation, mission transition, and personnel transition. USSTRATCOM staff will continue to meet routinely with other DoD and intelligence community entities to share interim lessons learned that can facilitate transition of all mission capabilities and personnel to the new facility.

b. Recommendation 2.b: If formal proceedings determine any USSTRATCOM personnel should be held directly accountable for increases in cost or schedule delays, the appropriate

U.S. Strategic Command (cont'd)

administrative actions will be taken. As of this date, no evidence has been presented that requires such action.

3. My POC for this project is [REDACTED]


JOHN E. HYTEN
General, U.S. Air Force
Commander

Copy to:
SECAF
CSAF
SECARMY
CSA

U.S. Army Corps of Engineers



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

May 11, 2018

[REDACTED]
Program Director
4800 Mark Center Drive
Alexandria, Virginia 22350-1500

Dear [REDACTED]

Enclosed is the U.S. Army Corps of Engineers' response to "U.S. Strategic Command Facility Construction Project (Project No. D2018-D000CG-0077.000)" dated May 1, 2018.

USACE appreciates this opportunity to address the DoD IG recommendations and concurs with all four recommendations in the DoD IG report dated May 1, 2018. We will continue to take the necessary steps to address the recommendations.

My point of contact for this response at HQUSACE is [REDACTED]

Sincerely,

A handwritten signature in black ink, appearing to read "Todd T. Semonite".

Todd T. Semonite
Lieutenant General, U.S. Army
Commanding General

Encl

U.S. Army Corps of Engineers (cont'd)

DOD IG DRAFT REPORT DATED MAY 1, 2018

**Project No. D2018-D000CG-0077.000
U.S. Strategic Command Facility Construction Project**

**U.S. Army Corps of Engineers COMMENTS
TO THE DoD IG RECOMMENDATIONS**

- a. RECOMMENDATION: Issue guidance to implement lessons learned from the U.S. Strategic Command Facility Construction Project into other military construction projects that contain DoD-unique requirements.**

RESPONSE: CONCUR with comments.

1. HQUSACE Engineering and Construction Bulletin 2016-16 put governance in place for Mega projects which includes a lessons learned process to share across the enterprise with project delivery teams (PDTs). Mega Project PDTs are encouraged to regularly communicate with other PDTs that have previously delivered, or are currently executing similar Mega Projects.
2. HQUSACE Memorandum dated 28 July 2017, Subject: Interim Guidance on the Implementation of the Military Missions Lessons Learned (MMLL) SharePoint Site. This policy provides guidance on capturing and sharing After Action Reviews (AARs) and Lessons Learned for Military Missions lines of business. As a learning organization, we have immediate capability to share Lessons Learned within and across the Enterprise to improve our ability to deliver quality projects on time and within budget. Lessons Learned from the STRATCOM AAR will be identified and input into the MMLL tool.

- b. RECOMMENDATION: Issue a memorandum directing contracting personnel involved with the U.S. Strategic Command and Facility Construction Project to issue annual past performance evaluations for contractors in the Contractor Performance Assessment Reporting System as required by Federal Acquisition Regulation subpart 42.15.**

RESPONSE: CONCUR with comment. USACE will issue a memorandum directing contracting personnel to comply with FAR subpart 42.15 for U.S. Strategic Command and Facility Construction Project no later than 31 May 18.

- c. RECOMMENDATION: Review the administrative actions of individuals involved in the cost increases or schedule delays of the U.S. Strategic Command Facility Construction Project and initiate action as appropriate.**

U.S. Army Corps of Engineers (cont'd)

2

RESPONSE: CONCUR with comment. To date, administrative actions have been in accordance with USACE internal management controls and business processes and no further action is required.

- d. **RECOMMENDATION: Complete an after-action review following the construction of the U.S. Strategic Command replacement facility.**

RESPONSE: CONCUR with comment. USACE will conduct an After Action Review within 60 days after the completion of construction for internal Department of Defense use.

U.S. Air Force



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, DC

MEMORANDUM FOR DEPARTMENT OF DEFENSE OFFICE OF INSPECTOR GENERAL

FROM: HQ USAF/A4
1030 Air Force Pentagon
Washington, DC 20330-1030

SUBJECT: Formal Comments to Recommendations in Draft Report DoDIG D2018-D000CG-0077.000, U.S. Strategic Command Facility Construction Project

Recommendation No. 4 in the Draft DoDIG Report for this construction project requires that AF/A4 provide formal comments to the following: "We recommend that the Commander, U.S. Air Force Civil Engineer Center, conduct program life-cycle evaluations to determine the success of the Cost Estimating Improvement Plan."

The Air Force Civil Engineer Center concurs with the recommendation. The Cost Estimating Improvement Plan is underway and includes methods for life-cycle evaluation to measure success.

If you have any questions, please have your staff contact [REDACTED]

or [REDACTED]

COOPER.JOHN | Digitally signed by
COOPER.JOHN.E.1028478913
.B.1028478913 | Date: 2018.05.21 15:27:02
-0400

JOHN B. COOPER
Lieutenant General, USAF
DCS/Logistics, Engineering & Force Protection

cc:
AF/A4C
AFIMSC/CC
AFCEC/CL

Acronyms and Abbreviations

55 CES	Air Force 55th Civil Engineer Squadron
AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AFRL	Air Force Research Laboratories
ATR	Above-threshold Reprogramming
BCA	Business Case Analysis
CCD	Customer Concept Document
CPARS	Contractor Performance Assessment Reporting System
DFARS	Defense Federal Acquisition Regulation Supplement
DTRA	Defense Threat Reduction Agency
ECB	Engineering and Construction Bulletin
EPRB	Executive Program Review Board
FAR	Federal Acquisition Regulation
HEMP	High-Altitude Electromagnetic Pulse
IAQ	Indoor Air Quality
IT	Information Technology
MILCON	Military Construction
NDAA	National Defense Authorization Act
OASD(EI&E)	Office of the Assistant Secretary of Defense for Energy, Installations, and Environment
OSD	Office of the Secretary of Defense
PERS	Permanent Earth Retention System
RMS	Resident Management System
SCIF	Sensitive Compartmented Information Facility
SPAWAR	Space and Naval Warfare Systems Command
SF	Square Foot
USACE	U.S. Army Corps of Engineers
CECW-CE	U.S. Army Corps of Engineers, Engineering and Construction Division
SASC	U.S. Senate Committee on Armed Services
USSTRATCOM	U.S. Strategic Command

Whistleblower Protection

U.S. DEPARTMENT OF DEFENSE

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Congressional Liaison

703.604.8324

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