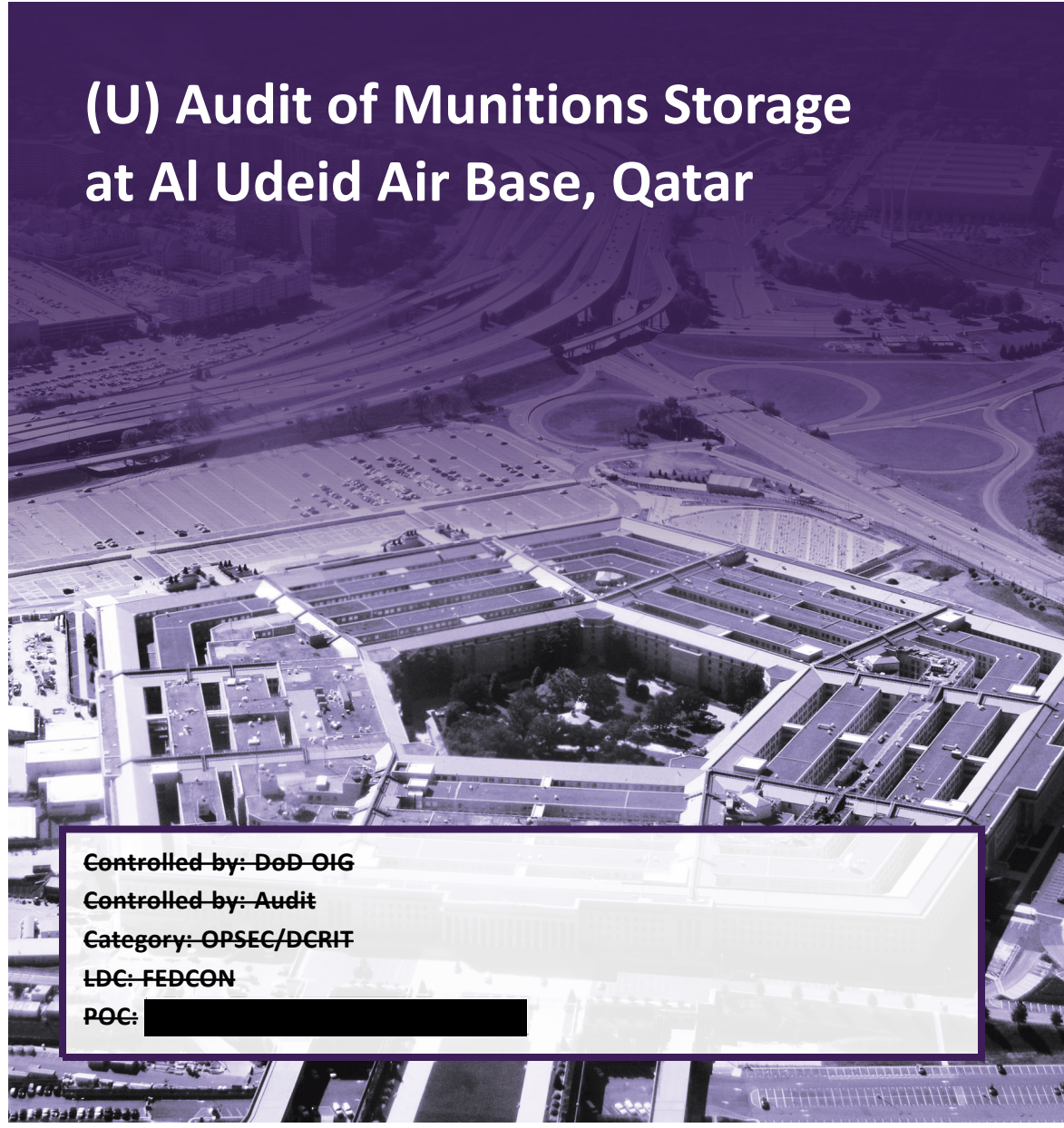


CUI

# INSPECTOR GENERAL

*U.S. Department of Defense*

MARCH 19, 2024



## (U) Audit of Munitions Storage at Al Udeid Air Base, Qatar

Controlled by: DoD-OIG

Controlled by: Audit

Category: OPSEC/DCRIT

LDC: FEDCON

POC: [REDACTED]

INDEPENDENCE ★ INTEGRITY ★ EXCELLENCE ★ TRANSPARENCY

CUI





# (U) Results in Brief

## (U) Audit of Munitions Storage at Al Udeid Air Base, Qatar

March 19, 2024

### (U) Objective

(U) The objective of this audit was to determine whether the DoD stored munitions at Al Udeid Air Base, Qatar, in accordance with applicable safety and security policies.

(U) This is the first in a series of four reports reviewing munitions storage within the U.S. Central Command area of responsibility.

### (U) Background

(U) Munitions consist of ammunition and components used by the Armed Forces for national defense and security. U.S. Air Forces Central (USAFCENT), with assistance from the 379th Air Expeditionary Wing, USAFCENT Detachment 6, and a contractor, stores munitions at Al Udeid Air Base. In addition, multiple tenant organizations store munitions at Al Udeid Air Base through courtesy storage agreements with the contractor.

### (U) Findings

(~~CUI~~) DoD officials at Al Udeid Air Base generally stored munitions in accordance with applicable safety and security policies. However, Air Force officials could improve the management of stored munitions. Specifically, of the [REDACTED] munitions storage structures reviewed:

- (~~CUI~~) Air Force officials and contractor personnel did not manage munitions storage in accordance with approved net explosive weight (NEW) limits for [REDACTED] munitions storage structures;

### (U) Findings (cont'd)

- (~~CUI~~) Air Force officials were unaware of the NEW totals for the munitions stored in [REDACTED] munitions storage structures;
- (~~CUI~~) Air Force officials and contractor personnel did not track NEW totals of munitions stored by two tenant organizations in [REDACTED] munitions storage structures; and
- (~~CUI~~) Air Force officials did not [REDACTED] [REDACTED] munitions storage structures.

(~~CUI~~) This occurred because Air Force officials did not submit updated site plans for munitions storage structures or have a process to ensure site plans were current; did not think they were required to ensure Air Force and tenant organizations complied with NEW limits; did not think contractor personnel were required to track NEW totals for munitions stored; and did not properly monitor contractor performance to ensure contractor personnel [REDACTED].

(U) When Air Force officials do not manage munitions storage in accordance with approved NEW limits, it increases the risk of serious injury, loss of life, damage to property, and reduces the ability of Air Force officials to fully use munitions storage structures. Without awareness or tracking of the NEW totals of munitions stored, Air Force officials cannot effectively manage munitions storage to protect people and property. In addition, improper security of munitions can lead to munitions being lost, stolen, or misplaced without detection.

### (U) Management Actions Taken

(~~CUI~~) While the audit was ongoing, Air Force officials updated their site plan tracking process and began providing an overview of the status of USAFCENT installation's site plans to incoming Air Force weapons safety managers. In addition, Air Force officials required contractor personnel to update NEW limits in the Theater Integrated Combat Munitions System to ensure that Air Force officials and contractor personnel manage munitions storage in accordance with approved NEW limits. Air Force officials also submitted



# (U) Results in Brief

*(U) Audit of Munitions Storage at Al Udeid Air Base, Qatar*

## *(U) Management Actions Taken (cont'd)*

~~(CUI)~~ work orders to the 379th Expeditionary Civil Engineering Squadron [REDACTED] [REDACTED]

[REDACTED]

## **(U) Recommendations**

(U) We recommend that the Commander of the 379th Air Expeditionary Wing develop and implement procedures requiring weapons safety managers to review all explosives safety site plans to ensure safety plans are current; review NEW limits for munitions storage structures to ensure they align with approved NEW limits; and verify at least quarterly the NEW totals in all munitions storage structures to ensure they comply with NEW limits.

~~(CUI)~~ We recommend that the Commander of USAFCENT Detachment 6 ensure contractor personnel update courtesy storage agreements to require tenant organizations to report NEW totals to the contractor; ensure contractor personnel track NEW totals for all munitions stored in the munitions storage area; ensure that the contracting officer's representative audits include the contractor's tracking of NEW totals; and establish a minimum frequency for the contracting officer's representative to review contractor compliance with [REDACTED].

## **(U) Management Comments and Our Response**

(U) The USAFCENT Director of Logistics, Engineering, and Contracting, responding for the Commander of the 379th Air Expeditionary Wing and the Commander of USAFCENT Detachment 6, agreed or partially agreed with all seven recommendations. The Director described actions planned to address six of the seven recommendations and did not address the specifics for one recommendation. Therefore, one recommendation is unresolved and six recommendations are resolved and remain open. We request that the Director provide comments to the unresolved recommendation within 30 days. We will close the resolved recommendations once we verify that the 379th Air Expeditionary Wing and USAFCENT Detachment 6 have completed the agreed-upon actions.

(U) Please see the Recommendations Table on the next page for the status of recommendations.

**(U) Recommendations Table**

(U) Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
Commander, 379th Air Expeditionary Wing	1.c	1.a, 1.b	None
Commander, U.S. Air Forces Central Detachment 6	None	2.a, 2.b, 2.c, 2.d	None <b>(U)</b>

(U) Please provide Management Comments by April 18, 2024.

**(U) Note:** The following categories are used to describe agency management’s comments to individual recommendations.

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





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

March 19, 2024

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION  
 AND SUSTAINMENT  
 UNDER SECRETARY OF DEFENSE FOR POLICY  
 COMMANDER, U.S. CENTRAL COMMAND  
 COMMANDER, U.S. AIR FORCES CENTRAL  
 DIRECTOR, JOINT STAFF  
 AUDITOR GENERAL, DEPARTMENT OF THE AIR FORCE

SUBJECT: (U) Audit of Munitions Storage at Al Udeid Air Base, Qatar  
 (Report No. DODIG-2024-063)

(U) This final report provides the results of the DoD Office of Inspector General's audit. We previously provided copies of the draft report and requested written comments on the recommendations. We considered management's comments on the draft report when preparing the final report. These comments are included in the report.

(U) This report contains one recommendation that is considered unresolved because the U.S. Air Forces Central Director of Logistics, Engineering, and Contracting did not fully address the recommendation presented in the report. Therefore, the recommendation remains open. We will track this recommendation until management has agreed to take actions that we determine to be sufficient to meet the intent of the recommendation and management officials submit adequate documentation showing that all agreed-upon actions are completed.

(U) This report contains two recommendations to the 379th Air Expeditionary Wing Commander and four recommendations to the U.S. Air Forces Central Detachment 6 Commander that are considered resolved. Therefore, we will close those recommendations when the 379th Air Expeditionary Wing and the U.S. Air Forces Central Detachment 6 provide us adequate documentation showing that they have completed all agreed-upon actions to implement the recommendations.

(U) DoD Instruction 7650.03 requires that recommendations be resolved promptly. Therefore, please provide us within 30 days your response concerning specific actions in process or alternative corrective actions proposed on the recommendations. Please send your response for the unresolved recommendation to [audrigo@dodig.mil](mailto:audrigo@dodig.mil). For the resolved recommendations, please provide us documentation showing you have completed the agreed-upon actions within the estimated completion dates. Please send your documentation for the resolved recommendations as a PDF to [followup@dodig.mil](mailto:followup@dodig.mil) if unclassified or [rfunet@dodig.smil.mil](mailto:rfunet@dodig.smil.mil) if classified SECRET.

(U) We appreciate the cooperation and assistance received during the audit. If you have any questions, please contact me at [REDACTED]

FOR THE INSPECTOR GENERAL:



Richard B. Vasquez  
Assistant Inspector General for Audit  
Readiness and Global Operations



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## **(U) Introduction**

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### **(U) Objective**

(U) The objective of this audit was to determine whether the DoD stored munitions at Al Udeid Air Base, Qatar, in accordance with applicable safety and security policies.

(U) This is the first in a series of four reports reviewing munitions storage within the U.S. Central Command (USCENTCOM) area of responsibility. See Appendix A for the scope, methodology, and prior coverage related to the objective.

### **(U) Background**

(U) U.S. Service members conducting operations in USCENTCOM's area of responsibility require munitions to complete missions. Munitions consist of ammunition and components used by the Armed Forces for national defense and security.<sup>1</sup> DoD officials store munitions in locations across USCENTCOM's area of responsibility, including Al Udeid Air Base.

### ***(U) Munitions Storage Roles and Responsibilities***

(U) The DoD Explosives Safety Board (DDESB) is the lead agency for explosive safety management for the DoD. At Al Udeid Air Base, U.S. Air Forces Central (USAFCENT) manages munitions storage through its subordinate units—the 379th Air Expeditionary Wing (AEW) and USAFCENT Detachment 6.

### ***(U) DoD Explosives Safety Board***

(U) Under the authority of the Under Secretary of Defense for Acquisition and Sustainment, the Executive Director of the DDESB serves as the principal representative and adviser on explosives safety matters related to DoD munitions. The DDESB published the Defense Explosives Safety Regulation (DESR) 6055.09, which establishes DoD explosives safety standards.<sup>2</sup>

### ***(U) U.S. Air Forces Central***

(U) Within USCENTCOM's area of responsibility, USAFCENT is responsible for air operations and the development of contingency plans in support of national objectives. USAFCENT, with assistance from the 379th AEW and USAFCENT

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<sup>1</sup> (U) Section 101(e)(4), title 10, United States Code. Munitions include devices and components of propellants, explosives, smokes, rockets, guided and ballistic missiles, bombs, artillery and small arms ammunition, grenades, mines, and more. However, military munitions do not include nuclear weapons and components.

<sup>2</sup> (U) DDESB DESR 6055.09, "Defense Explosives Safety Regulation 6055.09," Edition 1, January 13, 2019. The Office of the Under Secretary of Defense for Acquisition and Sustainment develops and maintains explosives safety standards and regulations through the DDESB.

(U) Detachment 6, manages a supply program, including munitions, at Al Udeid Air Base. USAFCENT uses a contractor to store, maintain, and account for munitions and to maintain munitions storage structures in the munitions storage area at Al Udeid Air Base.

***(U) 379th Air Expeditionary Wing***

~~(CUI)~~ USAFCENT's 379th AEW is responsible for managing the safety and security of munitions stored at Al Udeid Air Base. For example, the 379th AEW weapons safety managers are responsible for the management of explosives safety programs to ensure Air Force and tenant organizations storing munitions comply with munitions safety standards. In addition, the 379th Expeditionary Security Forces Squadron is responsible for the security of munitions storage structures. The 379th Expeditionary Civil Engineering Squadron is responsible for the

***(U) U.S. Air Forces Central Detachment 6***

(U) USAFCENT Detachment 6 provides the contracting officer's representatives and serves as the forward point of contact for the Al Udeid Air Base munitions contract. Contracting officer's representatives are responsible for monitoring the contractor's compliance with contract requirements.

***(U) Munitions Contractor***

~~(CUI)~~ In January 2017, the Air Force awarded an 8-year, \$412.2 million contract for the storage, maintenance, and logistics support of war reserve materiel, including munitions, at Al Udeid Air Base and other locations across USCENTCOM's area of responsibility.<sup>3</sup> The contractor is responsible for the storage, inventory, and maintenance of munitions at Al Udeid Air Base. The contractor is also responsible for arranging courtesy storage agreements with tenant organizations, [REDACTED], and reporting any circumstances that may pose a threat to the security of DoD resources to an appropriate authority.<sup>4</sup> In addition, the contractor is responsible for tracking net explosive weight (NEW), which is the maximum weight of munitions in pounds of explosive material.

<sup>3</sup> (U) The contract included an initial 5-month period of performance, with seven 1-year options and one 6-month option. In addition, this report only references munitions-specific requirements of the war reserve materiel contract, referred to as the munitions contract for the purposes of this report.

<sup>4</sup> (U) Courtesy storage agreements are memorandums of agreement used to establish responsibilities when an installation provides courtesy munitions storage for tenant organizations. The munitions contract requires the contractor to arrange and manage courtesy storage agreements, per the direction of USAFCENT Detachment 6 officials.

### ***(U) Tenant Organizations***

(U) In addition to USAFCENT, multiple tenant organizations stored munitions at Al Udeid Air Base as of March 2023. Tenant organizations typically store munitions in the munitions storage area at Al Udeid Air Base through courtesy storage agreements with the contractor, per the direction of USAFCENT Detachment 6 officials. Courtesy storage agreements require the requesting organization to comply with Air Force explosives storage and maintenance safety standards and provide munitions data to the contractor. See Appendix B for a list of storage structures we reviewed, including those used by tenant organizations.

### ***(U) Munitions Storage Requirements***

(U) DoD Instruction 6055.16, DESR 6055.09, DoD Manual 5100.76, and DoD Instruction 4140.01 establish safety and security guidance for munitions storage.<sup>5</sup> The Air Force also established guidance to implement the DoD munitions storage policies.

### ***(U) Safety Requirements for Munitions Storage***

(U) DoD Instruction 6055.16 requires Military Departments to establish explosives safety management programs for all DoD installations that store munitions. According to the DDESB, the lead Military Service at each installation is responsible for ensuring that munitions are stored in accordance with all applicable safety policies. In addition, Air Force Instruction 91-202 requires weapons safety managers to manage explosives safety programs to ensure Air Force and tenant organizations storing munitions comply with munitions safety standards.<sup>6</sup>

(U) DESR 6055.09 establishes DoD explosives safety standards, which are intended to reduce the risk of serious injury, loss of life, or damage to property from DoD munitions operations. In addition, Air Force Manual 91-201 establishes Air Force policy for explosives safety criteria.<sup>7</sup> For example, DESR 6055.09 requires all munitions storage structures to have an approved explosives safety site plan (site plan) or an approved deviation. The 379th AEW Weapons Safety Division is responsible for developing and providing site plans to the USAFCENT Weapons Safety Division. The USAFCENT Weapons Safety Division is required to review and submit the site plans to the Air Force Safety Center (AFSEC), which reviews and

<sup>5</sup> (U) DoD Instruction 6055.16, "Explosives Safety Management Program," July 29, 2008 (Incorporating Change 3, August 31, 2018).

(U) DoD Manual 5100.76, "Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)," April 17, 2012 (Incorporating Change 2, October 5, 2020).

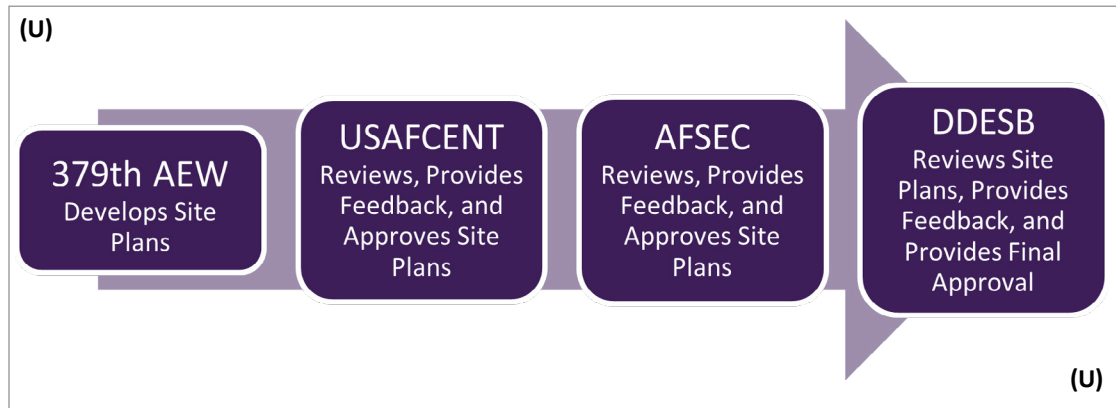
(U) DoD Instruction 4140.01, "DoD Supply Chain Materiel Management Policy," March 6, 2019.

<sup>6</sup> (U) Air Force Instruction 91-202, "The U.S. Air Force Mishap Prevention Program," March 12, 2020 (Updated October 30, 2020).

<sup>7</sup> (U) Air Force Manual 91-201, "Explosives Safety Standards," March 10, 2023.

(U) submits the site plans to the DDESB for final approval. The USAFCENT Weapons Safety Division, AFSEC, or the DDESB may provide feedback or request additional information during the site plan review process. Figure 1 shows the process for submitting, reviewing, and approving site plans at Al Udeid Air Base.

(U) Figure 1. Site Plan Submission, Review, and Approval Process at Al Udeid Air Base



(U) Source: The DoD OIG.

(U) Site plans establish storage and operational limits, such as NEW limits and explosives safety quantity distance arcs (explosives arcs) for munitions storage structures. For example, each munitions storage structure has an authorized NEW limit based on design, condition, and proximity to other munitions or inhabited buildings. Explosives arcs are distance separations intended to provide defined levels of protection in the event of an explosion. Air Force Manual 91-201 requires Air Force officials to manage and post NEW limits in an Air Force-approved database for tracking NEW total at explosives storage or operating locations.<sup>8</sup> Air Force Manual 21-200 requires Air Force officials to manage NEW totals using the Theater Integrated Combat Munitions System (TICMS).<sup>9</sup> In addition, according to a DDESB official, weapons safety managers are responsible for maintaining awareness of NEW totals of stored munitions on a consistent basis.

(U) DESR 6055.09 and Air Force Manual 91-201 require most munitions storage structures to be protected with a lightning protection system (LPS).<sup>10</sup> Exceptions to the LPS requirement include the DDESB approving alternate systems that meet the intent of an LPS, or the installation commander accepting the risk for not having an LPS installed.

<sup>8</sup> (U) Per contract requirements, the munitions contractor is responsible for managing and posting NEW limits in the munitions storage area at Al Udeid Air Base.

<sup>9</sup> (U) Air Force Manual 21-200, "Munitions and Missile Maintenance Management," August 9, 2018 (Incorporating Change 2, March 9, 2022). TICMS is an Air Force-wide program released in January 2020 that Air Force officials use to track munitions inventory and validate munitions data.

<sup>10</sup> (U) DESR 6055.09 and Air Force Manual 91-201 include additional explosives safety standards. However, the background of this report includes explosives safety standards significant to the findings of this report.

(U) DoD Instruction 6055.16 allows DoD officials to accept, assess, and document the risk for deviations from safety standards established in DESR 6055.09. For example, DoD officials can use event waivers when safety deviations are expected to last less than 1 year and are not expected to reoccur. Air Force Manual 91-201 requires the installation commander to approve event waivers before conducting operations. For operations planned beyond 1 year, Air Force Manual 91-201 requires Air Force officials to obtain DDESB site plan approval before the event waiver expiration.

***(U) Security Requirements for Munitions Storage***

(U) DoD Manual 5100.76 establishes requirements for protecting munitions stored at DoD installations during peacetime conditions. In addition, DoD Manual 5100.76 applies to munitions with the designated security risk category (SRC) I through IV. The SRC is the classification and sensitivity of munitions based on the relative use and availability of the munitions to criminal elements.<sup>11</sup> Table 1 lists examples of munitions by the SRC.

*(U) Table 1. Examples of Munitions by the SRC*

(U) SRC	Examples of Munitions
SRC I	<ul style="list-style-type: none"> <li>• Missiles and rockets in a ready-to-fire configuration</li> <li>• Complete explosives rounds for missiles and rockets</li> </ul>
SRC II	<ul style="list-style-type: none"> <li>• Missiles and rockets that require personnel or equipment to function</li> <li>• Military dynamite</li> </ul>
SRC III	<ul style="list-style-type: none"> <li>• Missiles and rockets that require complex hardware or software to function</li> <li>• Ammunition with explosive projectiles</li> </ul>
SRC IV	<ul style="list-style-type: none"> <li>• Explosive components of missiles and rockets</li> <li>• Ammunition with non-explosive projectiles</li> </ul>

(U)

(U) Source: The DoD OIG.

~~(CUI)~~ SRC I and II munitions pose a higher risk than SRC III and IV munitions and require additional security measures. DoD Manual 5100.76 requires munitions storage structures containing SRC I and II munitions to be equipped with an intrusion detection system (IDS), unless the storage area is continuously staffed or under constant surveillance to detect unauthorized entry. Munitions storage structures storing SRC III and IV require security force checks daily during non-duty hours.<sup>12</sup> In addition, DoD Manual 5100.76 requires munitions storage areas containing SRC I and II munitions to have [REDACTED].

<sup>11</sup> (U) Not all munitions have a SRC designation. For example, some munitions are categorized as non-sensitive and do not maintain an SRC designation.

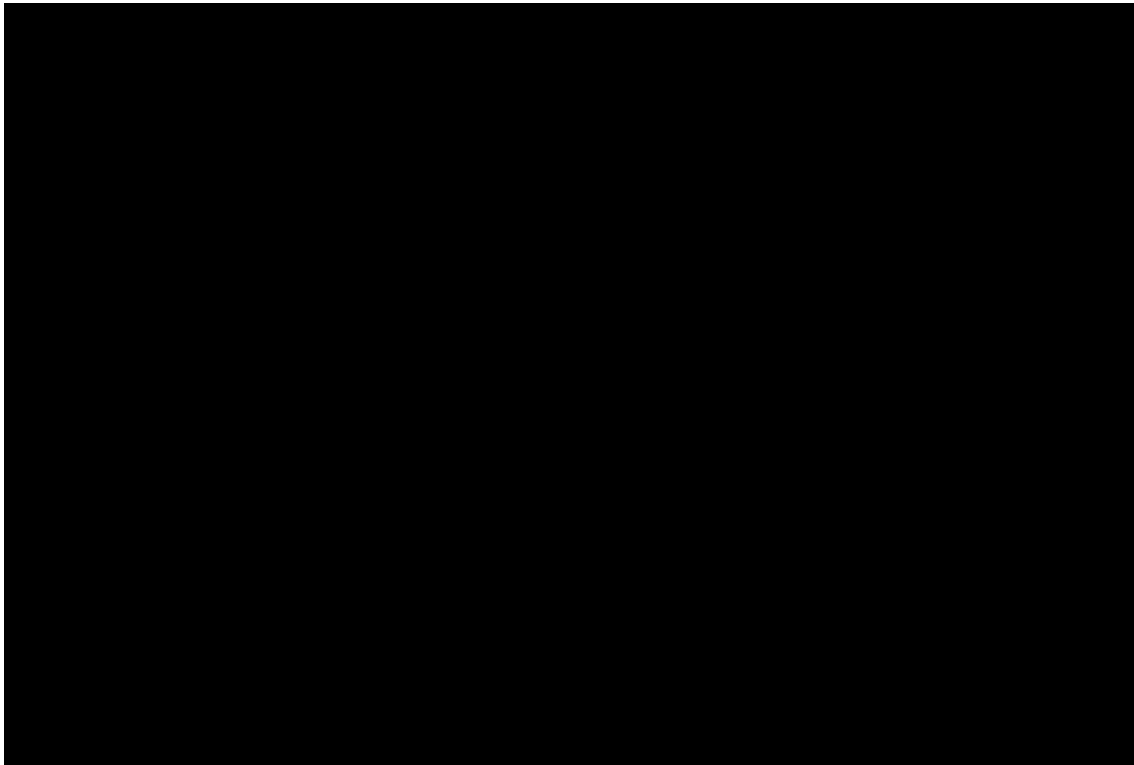
<sup>12</sup> (U) If a munitions storage structure containing SRC III and IV munitions is equipped with an IDS, daily security force checks during non-duty hours are not required.

(U) DoD Instruction 4140.01 requires DoD officials to maintain records for all inventory within the DoD supply chain, including munitions. Specifically, DoD officials are required to apply the highest levels of materiel accountability and asset visibility for munitions.

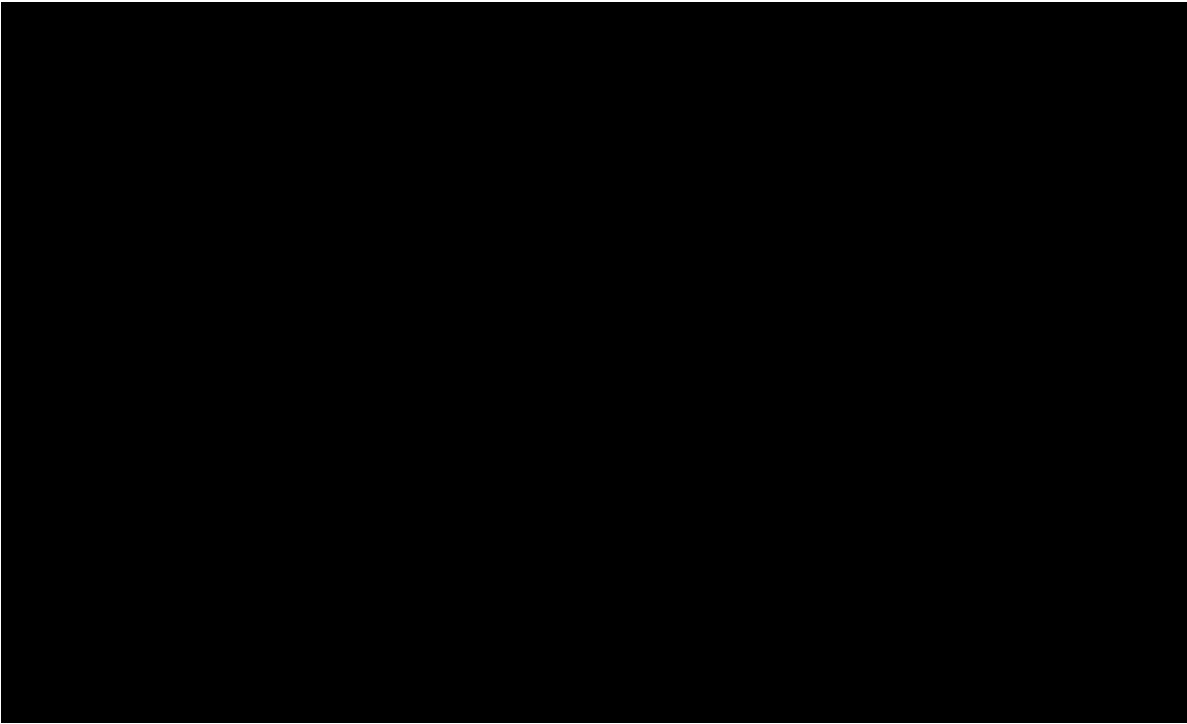
**(U) Munitions Stored at Al Udeid Air Base**

~~(CUI)~~ As of March 2023, DoD officials stored over [REDACTED] munitions, valued at more than \$1.8 billion, in [REDACTED] munitions storage structures at Al Udeid Air Base. We nonstatistically selected a sample of [REDACTED] munitions storage structures to review. The [REDACTED] munitions storage structures stored more than 20.1 million munitions. See Appendix B for the list of [REDACTED] munitions storage structures reviewed at Al Udeid Air Base.

~~(CUI)~~ DoD officials store munitions at Al Udeid Air Base in [REDACTED] of munitions storage structures, [REDACTED]. [REDACTED]  
[REDACTED]  
[REDACTED] Figures 2 and 3 show an example of [REDACTED] at Al Udeid Air Base.







## (U) Finding

### (U) DoD Officials at Al Udeid Air Base Generally Stored Munitions in Accordance with Policies but Could Improve Management of Stored Munitions

~~(CUI)~~ DoD officials at Al Udeid Air Base generally stored munitions in accordance with applicable safety and security policies. For example, DoD officials and contractor personnel protected munitions with LPSs, [REDACTED], and maintained accurate inventory records. However, Air Force officials could improve management of stored munitions.

- ~~(CUI)~~ USAFCENT Detachment 6 officials and contractor personnel did not manage munitions storage in accordance with approved NEW limits for [REDACTED] munitions storage structures reviewed. This occurred because USAFCENT Weapons Safety Division officials did not submit updated site plans for the [REDACTED] munitions storage structures to AFSEC before the site plan submissions expired, and the 379th Weapons Safety Division officials did not have a process to ensure site plans were current.
- ~~(CUI)~~ Weapons safety managers from the 379th AEW were unaware of the NEW totals for the munitions stored in [REDACTED] munitions storage structures reviewed. This occurred because the 379th AEW weapons safety managers did not think they were required to ensure Air Force and tenant organizations complied with NEW limits.
- ~~(CUI)~~ USAFCENT Detachment 6 officials and contractor personnel did not track the NEW totals for munitions stored by two tenant organizations in [REDACTED] munitions storage structures reviewed. This occurred because contractor personnel did not arrange sufficient courtesy storage agreements, and USAFCENT Detachment 6 officials did not believe contractor personnel were required to track NEW totals for munitions stored by the two tenant organizations.
- ~~(CUI)~~ Officials from the 379th Expeditionary Civil Engineering Squadron did not [REDACTED] munitions storage structures reviewed. This occurred because contractor personnel did not [REDACTED], and USAFCENT Detachment 6 officials did not properly monitor contractor performance.

(U) When Air Force officials do not manage munitions storage in accordance with approved NEW limits, it increases the risk of serious injury, loss of life, and damage to property and reduces the ability of Air Force officials to fully use munitions storage structures. Without awareness or tracking of the NEW totals of stored

(U) munitions, Air Force officials cannot effectively manage munitions storage to provide the maximum protection to people and property. In addition, improper security of munitions can lead to munitions being lost, stolen, or misplaced without detection.

### **(U) DoD Officials at Al Udeid Air Base Generally Stored Munitions in Accordance with Safety and Security Policies**

~~(CUI)~~ DoD officials at Al Udeid Air Base generally stored munitions in accordance with applicable safety and security policies. For example, DoD officials and contractor personnel protected munitions with LPSs, [REDACTED], and maintained accurate inventory records.

### ***(U) Air Force Officials and Contractor Personnel Protected Munitions with Lightning Protection Systems***

~~(CUI)~~ Air Force officials and contractor personnel at Al Udeid Air Base protected munitions with LPSs in accordance with safety policies. DESR 6055.09 and Air Force Manual 91-201 require LPSs to protect most munitions storage structures. During our March 2023 site visit, [REDACTED] munitions storage structures we reviewed had LPSs. The 379th AEW Commander accepted the risk for not having LPSs installed for [REDACTED] munitions storage structures reviewed, in accordance with DESR 6055.09. In addition, [REDACTED] munitions storage structures reviewed did not require LPSs in accordance with DESR 6055.09 and Air Force Manual 91-201.

~~(CUI)~~ In addition, DESR 6055.09 requires DoD officials to visually inspect LPSs annually and test LPSs biennially. We reviewed visual inspection and test records for the [REDACTED] munitions storage structures with LPSs. The records included drawings of the munitions storage structures that identified the LPS points and documented the dates contractor personnel conducted the visual inspections and tests. We determined contractor personnel conducted annual visual inspections and biennial tests of LPSs for the [REDACTED] munitions storage structures with LPSs.

### **~~(CUI)~~ Air Force Officials and Contractor Personnel [REDACTED]**

~~(CUI)~~ Air Force officials and contractor personnel [REDACTED] in accordance with security policies. DoD Manual 5100.76 requires munitions storage structures [REDACTED]. As of March 2023, [REDACTED] munitions storage structures reviewed [REDACTED]. During physical inspections

(~~CUI~~) of munitions storage structures, we observed [REDACTED] present at all [REDACTED] munitions storage structures. In addition, we observed 379th AEW officials and contractor personnel [REDACTED] the IDS for the [REDACTED] munitions storage structures.

(~~CUI~~) DoD Manual 5100.76 also requires DoD officials to [REDACTED]

[REDACTED]

[REDACTED] We reviewed [REDACTED]

[REDACTED]

Specifically, the [REDACTED]

[REDACTED]

[REDACTED].

### ***(U) DoD Officials and Contractor Personnel Maintained Accurate Inventory Records***

(~~CUI~~) DoD officials and contractor personnel maintained accurate inventory records in accordance with security policies. DoD Instruction 4140.01 requires DoD officials to maintain records for all inventory within the DoD supply chain, including munitions, which require the highest levels of materiel accountability and asset visibility. In addition, the munitions contract requires the contractor to inventory assigned munitions stored at Al Udeid Air Base. We obtained munitions records from USAFCENT Detachment 6 and tenant organization officials, and performed inventories at [REDACTED] munitions storage structures reviewed. Specifically, we performed book-to-floor (existence) inventories of over [REDACTED] munitions and floor-to-book (completeness) inventories of over [REDACTED] munitions and verified DoD officials properly accounted for munitions.

### **(U) Air Force Officials at Al Udeid Air Base Could Improve Management of Stored Munitions**

(~~CUI~~) Air Force officials at Al Udeid Air Base could improve management of stored munitions. Specifically, USAFCENT Detachment 6 officials and contractor personnel did not manage munitions storage in accordance with approved NEW limits for [REDACTED] munitions storage structures reviewed. The 379th AEW weapons safety managers were unaware of the NEW totals for the munitions stored in [REDACTED] munitions storage structures reviewed, and USAFCENT Detachment 6 officials and contractor personnel did not track the NEW totals for munitions stored by two tenant organizations in [REDACTED] munitions storage structures reviewed. Additionally, the 379th Expeditionary Civil Engineering Squadron did not [REDACTED] [REDACTED] munitions storage structures reviewed.

**(U) Air Force Officials and Contractor Personnel Did Not Manage Munitions Storage in Accordance with Approved Net Explosive Weight Limits**

~~(CUI)~~ USAFCENT Detachment 6 officials and contractor personnel did not manage munitions storage in accordance with approved NEW limits for more than a year for [REDACTED] munitions storage structures reviewed. DESR 6055.09 requires munitions storage structures to have DDESB-approved site plans, which include established NEW limits. In addition, Air Force Manual 91-200 requires Air Force officials to manage NEW limits using TICMS. However, as of March 2023, the NEW limits established in TICMS for [REDACTED] munitions storage structures reviewed did not align with NEW limits in DDESB-approved site plans. For example, the total NEW limits established in TICMS for munitions storage structure [REDACTED] exceeded the total NEW limits in the approved site plan by [REDACTED]. Table 2 summarizes the total NEW limits established in TICMS and the total NEW limits approved by the DDESB for the [REDACTED] munitions storage structures.

(U) Table 2. Total NEW Limits Established in TICMS and Total NEW Limits Approved by the DDESB

<del>(CUI)</del> Munitions Storage Structure	Total NEW Limits Established in TICMS	Total NEW Limits Approved by the DDESB	Difference
[REDACTED]			

(U) Note: The total NEW limits and differences are presented in pounds.

(U) Source: The DoD OIG.

**(U) Air Force Officials Did Not Submit Updated Site Plans**

~~(CUI)~~ USAFCENT Detachment 6 officials and contractor personnel did not manage munitions storage in accordance with approved NEW limits for more than a year because USAFCENT Weapons Safety Division officials did not submit updated site plans to AFSEC for the [REDACTED] munitions storage structures. In April 2021, the 379th AEW Weapons Safety Division updated the site plans for the munitions storage structures with changes to the previously DDESB-approved NEW limits and submitted the updated site plans as event waivers to the USAFCENT Weapons Safety Division for review and submission to AFSEC.<sup>13</sup> However, the USAFCENT Weapons

<sup>13</sup> (U) The 379th AEW Weapons Safety Division submitted the site plans as an event waiver, which allowed DoD officials to continue munitions storage operations under the updated NEW limits for 365 days, or until the DDESB approved the site plans, whichever occurred first.

~~(CUI)~~ Safety Division did not provide the updated site plans to AFSEC for review and submission to the DDESB for final approval. Therefore, the site plan submissions and event waivers expired and USAFCENT Detachment 6 officials and contractor personnel did not manage munitions storage in accordance with approved NEW limits since April 2022. USAFCENT Weapons Safety Division officials stated that they lost visibility of the site plan submissions.

(U) In June 2023, USAFCENT Weapons Safety Division officials stated that they updated their site plan tracking process in February 2023 to standardize and align with an AFSEC site plan tracker. To increase visibility and awareness of the site plan status, USAFCENT Weapons Safety Division officials started providing a welcome email to all incoming weapons safety managers in June 2023 that includes a status overview of the installation's site plans. In addition, the USAFCENT Weapons Safety Division officials uploaded the site plan tracker to a SharePoint page in August 2023 so all weapons safety managers could check the status of site plans. Because these actions addressed the issues we identified, we are not making a recommendation related to tracking and communicating the status of site plan submissions to installation-level weapons safety managers.

### ***(U) Air Force Officials Did Not Have a Process for Reviewing Site Plans***

(U) USAFCENT Detachment 6 officials and contractor personnel did not manage munitions storage in accordance with approved NEW limits for more than a year because the 379th Weapons Safety Division officials did not have a process to ensure site plans were current. Specifically, the 379th AEW weapons safety managers stated that the 379th AEW Weapons Safety Division did not have a standardized process for managing and reviewing site plans and event waivers. For example, the 379th AEW weapons safety managers stated that they used electronic folders to track in-process and completed site plans and that the 379th AEW weapons safety managers from a previous deployment incorrectly saved the in-process site plans for the munitions storage structures in the completed folder. In addition,

*(U) 379th AEW weapons safety managers failed to ensure USAFCENT Detachment 6 officials and contractor personnel were managing against approved NEW limits in TICMS.*

the 379th AEW weapons safety managers stated that they were unaware the in-process site plans for the munitions storage structures had expired. As a result, 379th AEW weapons safety managers failed to ensure USAFCENT Detachment 6 officials and contractor personnel were managing against approved NEW limits in TICMS. Therefore, the 379th AEW Commander should develop and implement procedures requiring incoming

(U) 379th AEW weapons safety managers to review all in-process and completed site plans to ensure plans are current. In addition, the 379th AEW Commander should develop and implement procedures requiring incoming 379th AEW weapons safety managers to review NEW limits in TICMS for munitions storage structures to ensure they align with NEW limits in DDESB-approved site plans.

### ***(U) Air Force Officials Were Unaware of Net Explosive Weight Totals in Munitions Storage Structures***

~~(U)~~ The 379th AEW weapons safety managers were unaware of the NEW totals for the munitions stored in [REDACTED] munitions storage structures reviewed. In accordance with Air Force Instruction 91-202, the 379th AEW weapons safety managers are required to manage explosives safety programs at Al Udeid Air Base to ensure Air Force and tenant organizations storing munitions comply with munitions safety standards, which includes compliance with NEW limits.

(U) The 379th AEW weapons safety managers were unaware of the NEW totals because they did not think they were required to ensure Air Force and tenant organizations storing munitions at Al Udeid Air Base complied with NEW limits. Specifically, the 379th AEW weapons safety managers stated that they were responsible for developing site plans and establishing NEW limits, while the officials storing munitions were required to comply with the NEW limits. However, Air Force Instruction 91-202 requires the 379th AEW weapons safety managers to ensure Air Force and tenant organizations storing munitions comply with munitions safety standards. To ensure compliance, safety managers should verify the NEW totals of stored munitions. In addition, according to a DDESB official, the 379th AEW weapons safety managers should maintain awareness of the NEW totals of stored munitions at least quarterly, or more frequently depending on the movement of munitions at Al Udeid Air Base. Therefore, the 379th AEW Commander should develop and implement procedures requiring the 379th AEW weapons safety managers to verify at least quarterly the NEW totals in all munitions storage structures at Al Udeid Air Base to ensure all DoD organizations storing munitions comply with NEW limits.

### ***(U) Air Force Officials and Contractor Personnel Did Not Track Net Explosive Weight Totals***

~~(U)~~ USAFCENT Detachment 6 officials and contractor personnel did not track the NEW totals for munitions stored by two tenant organizations using courtesy storage agreements in [REDACTED] munitions storage structures reviewed. According to contract requirements, the munitions contractor is responsible for tracking NEW totals for munitions stored by all tenant organizations in the munitions

(~~CUI~~) storage area. However, contractor personnel did not track the NEW totals of munitions stored by two tenant organizations in [REDACTED] munitions storage structures reviewed. Table 3 summarizes the munitions stored by the two tenant organizations in the munitions storage area at Al Udeid Air Base.

(U) Table 3. Tenant Organizations Storing Munitions in the Munitions Storage Area

<del>(CUI)</del> Tenant Organization	Munitions Storage Structure	NEW Totals of Stored Munitions
592nd Ordnance Company	[REDACTED]	
8th Expeditionary Air Mobility Squadron	[REDACTED]	

(U) Note: The NEW totals are presented in pounds.

(U) Source: The DoD OIG.

***(U) Air Force Officials and Contractor Personnel Did Not Arrange Sufficient Courtesy Storage Agreements***

(~~CUI~~) USAFCENT Detachment 6 officials and contractor personnel did not track the NEW totals for munitions stored by two tenant organizations because USAFCENT Detachment 6 officials and contractor personnel did not arrange sufficient courtesy storage agreements that required the two tenant organizations to report the NEW totals of stored munitions in the [REDACTED] munitions storage structures. For example, in one of the two courtesy storage agreements, the contractor required 8th Expeditionary Air Mobility Squadron officials to account for and report data, including quantities and SRCs, for munitions delivered to or removed from [REDACTED] munitions storage structure to the contractor to ensure the safety of the munitions. However, the courtesy storage agreement did not require the 8th Expeditionary Air Mobility Squadron to report the NEW totals for munitions delivered to or removed from the munitions storage structure to the contractor. Therefore, the USAFCENT Detachment 6 Commander should ensure contractor personnel update courtesy storage agreements to require tenant organizations to initially report all munitions data, including NEW totals, and to report changes in munitions storage to the contractor.



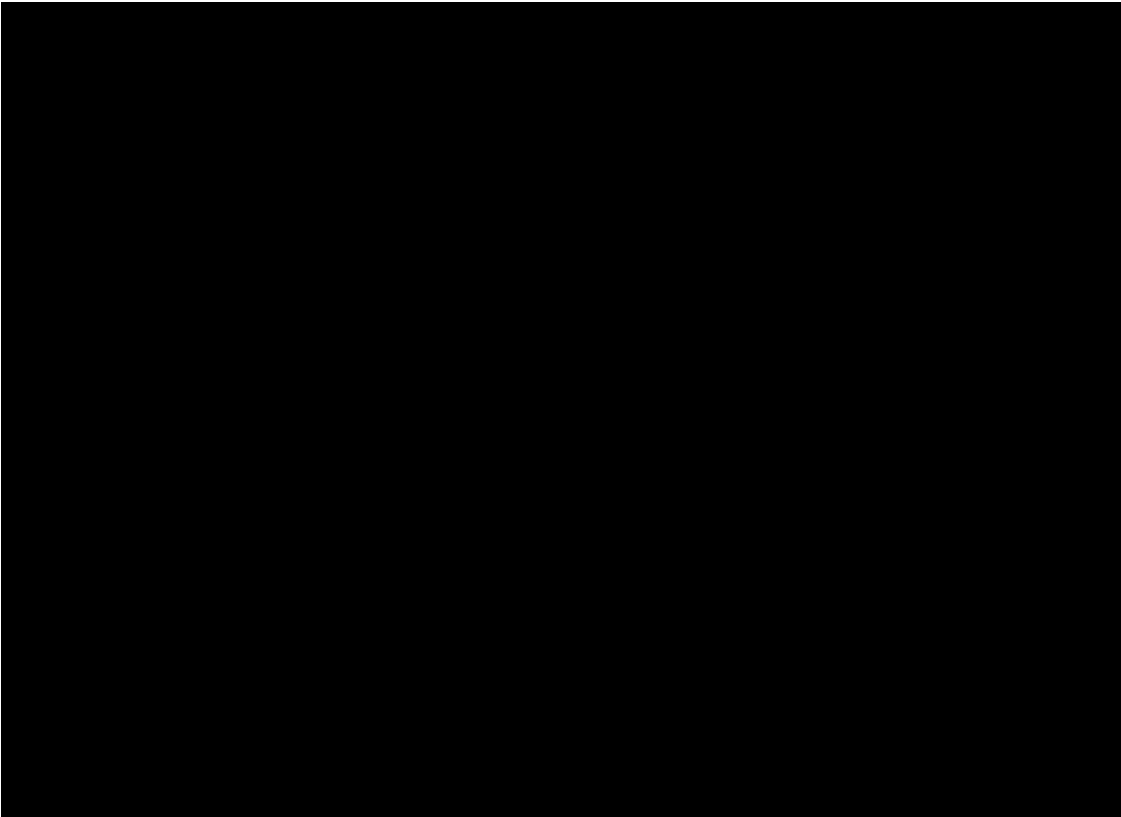
***(U) Air Force Officials Did Not Believe Contractor Personnel Were Required to Track Net Explosive Weight Totals***

~~(CUI)~~ USAFCENT Detachment 6 officials and contractor personnel did not track the NEW totals for munitions stored by two tenant organizations because USAFCENT Detachment 6 officials did not believe contractor personnel were required to track the NEW totals for munitions stored by two tenant organizations in the munitions storage area. Specifically, USAFCENT Detachment 6 officials and contractor personnel stated that while they provided the [REDACTED] munitions storage structures used by the two tenant organizations, the two tenant organizations were fully responsible for their own munitions, including tracking NEW totals. However, the munitions contract requires the contractor to track NEW totals for all munitions in the munitions storage area, including munitions belonging to tenant organizations. Furthermore, according to a DDESB official, it is critical for the officials managing the munitions storage area to be aware of the NEW totals for all stored munitions to ensure compliance with explosives safety standards. Because USAFCENT Detachment 6 officials and contractor personnel did not track the NEW totals for munitions stored by two tenant organizations, they could not manage the munitions storage area effectively to comply with explosives safety standards, such as established NEW limits and explosives arcs. Therefore, the USAFCENT Detachment 6 Commander should ensure contractor personnel track the NEW totals for all munitions stored in the munitions storage area. In addition, the USAFCENT Detachment 6 Commander should ensure that the contracting officer's representative audits include the contractor's compliance with tracking NEW totals for all munitions, including tenant organization munitions, stored in the munitions storage area.

***~~(CUI)~~ Air Force Officials Did Not [REDACTED]***

~~(CUI)~~ Officials from the 379th Expeditionary Civil Engineering Squadron did not [REDACTED] munitions storage structures reviewed. DoD Manual 5100.76 requires munitions storage areas [REDACTED]. The required [REDACTED]. [REDACTED]. [REDACTED]. [REDACTED].

(CUI) For example, [REDACTED]  
[REDACTED] Figure 4 shows an example of [REDACTED]  
[REDACTED]

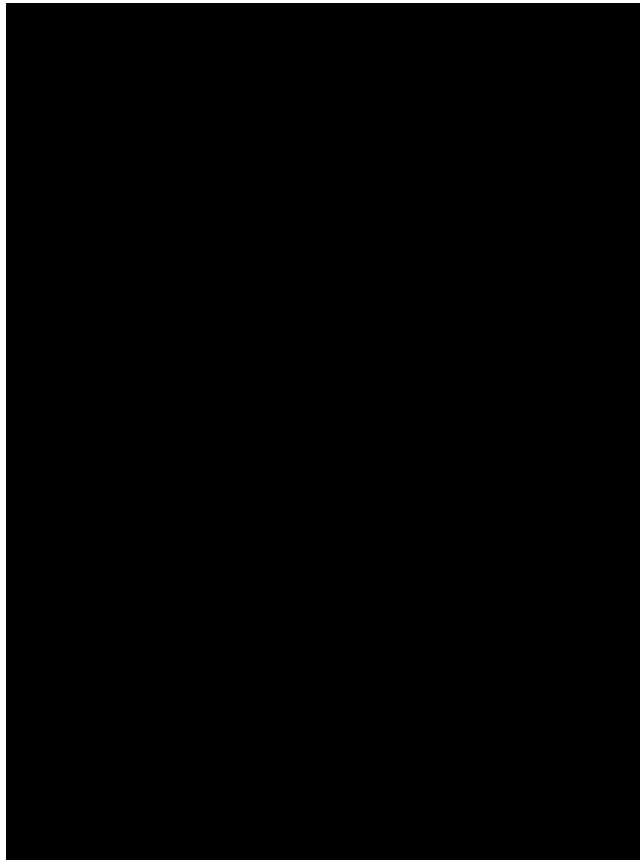


***(CUI) Contractor Personnel Did Not [REDACTED] and Air Force Officials Did Not Oversee Contractor Performance***

(CUI) Officials from the 379th Expeditionary Civil Engineering Squadron did not [REDACTED] because contractor personnel did not conduct [REDACTED] [REDACTED] and USAFCENT Detachment 6 officials did not properly monitor contractor performance to ensure the contractor [REDACTED]. The munitions contract requires the contractor to [REDACTED] [REDACTED] the munitions storage area and to report any circumstances that may pose a threat to the security of DoD resources to an appropriate authority. According to USAFCENT Detachment 6 officials, the contractor is required to report [REDACTED] in the munitions storage area to the 379th Expeditionary Civil Engineering Squadron. However, the contracting officer for the munitions contract stated that the contractor had not [REDACTED] of the munitions storage area.

(CUI) In addition, the quality assurance surveillance plan for the munitions contract requires the USAFCENT Detachment 6 contracting officer's representative to conduct monthly audits of contractor performance and document the contractor's

(~~CUI~~) compliance with a random sample of facilities management requirements. However, in June 2023, USAFCENT Detachment 6 officials stated that audits conducted by the contracting officer’s representatives for the previous 2 years did not include a review of the contractor’s compliance with [REDACTED].



(~~CUI~~) In October 2023, a USAFCENT Detachment 6 official stated that they submitted work orders to the 379th Expeditionary Civil Engineering Squadron [REDACTED]. On October 19, 2023, we conducted a physical inspection of the [REDACTED].

[REDACTED] and verified the [REDACTED]. Figure 5 shows an example of [REDACTED].

(~~CUI~~) Although USAFCENT Detachment 6 officials ensured the [REDACTED], without the contractor conducting [REDACTED], USAFCENT Detachment 6 officials and contractor personnel would be unable to [REDACTED]. Therefore, the USAFCENT Detachment 6 Commander should establish a minimum frequency for the contracting officer’s representative to review contractor compliance with [REDACTED].

**(U) Without Sufficient Management of Stored Munitions, DoD Officials Increased the Risk of Serious Injury, Loss of Life, Damage to Property, and Theft**

(U) Although DoD officials generally stored munitions at Al Udeid Air Base in accordance with safety and security policies, Air Force officials could improve management of stored munitions. When NEW limits in TICMS exceed DDESB-approved NEW limits, DoD officials can store munitions beyond a structure’s

(U) allotted capacity, increasing the risk of serious injury, loss of life, or damage to property. Conversely, when NEW limits in TICMS are less than DDESB-approved NEW limits, it prevents DoD officials from fully using a munitions storage structure’s capacity. Without awareness of the NEW totals of munitions stored, the 379th AEW weapons safety managers cannot effectively manage explosives safety programs to ensure organizations storing munitions understand and comply with munitions safety standards, and USAFCENT Detachment 6 officials and contractor personnel cannot effectively plan and manage munitions storage or ensure NEW limits are not exceeded. In addition, improper security of munitions can lead to munitions being lost, stolen, or misplaced without detection.

### (U) Management Actions Taken

~~(CUI)~~ During the course of the audit, 379th AEW weapons safety managers reviewed the accuracy of NEW limits in TICMS for ■ additional munitions storage structures that were not included in our sample, but were part of the same expired site plan submissions as the structures in our sample.<sup>14</sup> Their review identified ■ additional munitions storage structures that did not have accurate NEW limits in TICMS. For example, the NEW limits established in TICMS for munitions storage structure ■ exceeded the NEW limits in the approved site plan by ■. Table 4 summarizes the total NEW limits established in TICMS and the total NEW limits approved by the DDESB for the ■ munitions storage structures.

(U) Table 4. Total NEW Limits Established in TICMS and Total NEW Limits Approved by the DDESB

(CUI) Munitions Storage Structure	Total NEW Limits Established in TICMS	Total NEW Limits Approved by the DDESB	Difference
[Redacted Table Content]			

(U) Note: The total NEW limits and differences are presented in pounds.

(U) Source: The DoD OIG.

<sup>14</sup> ~~(CUI)~~ As of March 2023, DoD officials at Al Udeid Air Base stored munitions in ■ munitions storage structures. We reviewed the accuracy of NEW limits for ■ munitions storage structures, and a 379th AEW weapons safety manager reviewed ■ additional structures. Therefore, 379th AEW weapons safety managers need to review the accuracy of NEW limits for the remaining ■ munitions storage structures.

~~(CUI)~~ In April 2023, a 379th AEW weapons safety manager notified USAFCENT Detachment 6 officials and contractor personnel of the unapproved NEW limits and requested contractor personnel update NEW limits in TICMS until the 379th AEW Weapons Safety Division resubmits the site plans. As a result, contractor personnel updated the NEW limits in TICMS. In addition, in June 2023 USAFCENT Weapons Safety Division officials stated that they were working with the 379th AEW Weapons Safety Division to resubmit the site plans for the munitions storage structures in our sample and the additional [REDACTED] munitions storage structures for review and approval through AFSEC and the DDESB.

## **(U) Recommendations, Management Comments, and Our Response**

### ***(U) Recommendation 1***

**(U) We recommend that the Commander of the 379th Air Expeditionary Wing develop and implement procedures requiring incoming 379th Air Expeditionary Wing weapons safety managers to:**

- a. **(U) Review all in-process and completed explosives safety site plans to ensure explosives safety site plans are current.**

### ***(U) 379th Air Expeditionary Wing Comments***

(U) The USAFCENT Director of Logistics, Engineering, and Contracting, responding for the 379th AEW Commander, agreed with the recommendation, stating that the 379th AEW Weapons Safety Division maintains in-progress and completed explosives safety site plans on the Weapons Safety shared drive. The Director further stated that the 379th AEW Weapons Safety Division places copies of explosives safety site plans on the Weapons Safety SharePoint and notifies users by phone and email when updates to explosives safety site plans occur.

(U) Due to the findings, the Director stated that the 379th AEW Weapons Safety Division is reevaluating base-wide explosives safety site plans for accuracy, annually in accordance with Air Force Instruction 91-202. In addition, the Director stated that 379th AEW weapons safety managers will review all explosives safety site plans upon assignment to the area of responsibility and that local munitions units will follow Air Force Manual 21-200 requirements to review explosives safety site plans annually and as changes occur.

### ***(U) Our Response***

(U) Comments from the Director addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation when we receive and validate the documented procedures for reviewing explosives safety site plans and evidence that a review of all explosives safety site plans was completed.

- b. (U) Review net explosive weight limits in the Theater Integrated Combat Munitions System for all munitions storage structures to ensure they align with net explosive weight limits in DoD Explosive Safety Board-approved explosives safety site plans.**

### ***(U) 379th Air Expeditionary Wing Comments***

(U) The USAFCENT Director of Logistics, Engineering, and Contracting, responding for the 379th AEW Commander, partially agreed with the recommendation, stating that the 379th Expeditionary Maintenance Squadron and the contractor have access to TICMS and are responsible for verifying the accuracy of NEW limits. The Director stated that the 379th Weapons Safety Division will not have access to TICMS, but the 379th Weapons Safety Division will provide DDESB-approved NEW limits for all munitions storage structures as changes occur. The Director further stated that the 379th Expeditionary Maintenance Squadron and the contractor will perform a joint review of the NEW limits in TICMS and NEW limits in the DDESB-approved explosives safety site plans. The review will be documented in a memorandum for record and performed annually or as changes occur.

### ***(U) Our Response***

(U) Comments from the Director addressed the specifics of the recommendation to ensure that the NEW limits in TICMS aligned with the NEW limits in DDESB-approved explosives safety site plans. While the Director will not require the 379th AEW weapons safety managers to have access to TICMS, we believe the Director's alternate course of action meets the intent of the recommendation. Specifically, the 379th AEW weapons safety managers are still responsible for providing the NEW limits, as changes occur, in the DDESB-approved explosives safety site plans, so the 379th Expeditionary Maintenance Squadron and the contractor can perform their joint review. Therefore, the recommendation is resolved but will remain open. We will close the recommendation when we receive and validate: (1) the documented procedures for reviewing NEW limits in TICMS to ensure alignment with the NEW limits in DDESB-approved explosives safety site plans, (2) evidence that the 379th AEW weapons safety managers provided the NEW limits from the DDESB-approved explosives safety site plans, and (3) the memorandum for record documenting the most recent joint review.

- c. **(U) Verify at least quarterly the net explosive weight totals in all munitions storage structures at Al Udeid Air Base to ensure all organizations storing munitions comply with net explosive weight limits.**

### ***(U) 379th Air Expeditionary Wing Comments***

(U) The USAFCENT Director of Logistics, Engineering, and Contracting, responding for the 379th AEW Commander, partially agreed with the recommendation, stating that during day-to-day munitions operations, NEW verification occurs in accordance with Air Force Manual 91-201, which states that “supervisors are responsible for enforcing explosive limits.” The Director further stated that the 379th AEW Weapons Safety Division will ensure NEW limits are accurate and do not exceed posted limits while conducting spot and annual inspections in the munitions storage area. According to the Director, the last inspection was completed in September 2023, and the last spot inspection was completed in October 2023. No discrepancies were noted during either inspection. In addition, the Director stated that the contractor will review the weekly movements of munitions for storage violations, including NEW limit violations.

### ***(U) Our Response***

(U) Comments from the Director did not address the specifics of the recommendation; therefore, the recommendation is unresolved. We acknowledge that multiple parties have awareness of the NEW limits of munitions stored. However, 379th AEW weapons safety managers are responsible for ensuring that units storing munitions comply with munitions safety standards, including compliance with NEW limits. In addition, the Director did not provide a minimum frequency that spot inspections will be performed nor did they state if inspections would be performed at munitions storage structures outside of the munitions storage area. Because munitions may move in and out of Al Udeid Air Base throughout the year, conducting inspections at least quarterly would provide 379th AEW weapons safety managers with the awareness needed to ensure that units comply with munitions safety standards. Therefore, we request that the Director reconsider their position on this recommendation and provide comments to the final report within 30 days.

## ***(U) Recommendation 2***

**(U) We recommend that the Commander of U.S. Air Forces Central Detachment 6:**

- a. **(U) Ensure contractor personnel update courtesy storage agreements to require tenant organizations to initially report all munitions data, including net explosive weight totals, and to report changes in munitions storage to the contractor.**

### ***(U) U.S. Air Forces Central Logistics, Engineering, and Contracting Directorate (A-4) Comments***

(U) The USAFCENT Director of Logistics, Engineering, and Contracting, responding for the USAFCENT Detachment 6 Commander, agreed with the recommendation, stating that the contracting officer's representative will audit munitions courtesy storage agreements maintained by contractor personnel. The Director stated that during the audits the contracting officer's representative will validate that the courtesy storage agreements between the contractor and tenant organizations include requirements for reporting changes in munitions data, including NEW totals. The audits will also determine whether the contractor is updating courtesy stored munitions data as required. The Director stated that the contracting officer's representative conducted an audit in October 2023 and validated that the contractor was maintaining courtesy storage agreements. Furthermore, the Director stated that the next audit would be completed by March 31, 2024.

### ***(U) Our Response***

(U) Comments from the Director addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation when USAFCENT Detachment 6 officials provide us with: (1) the quality assurance surveillance plan that requires the contracting officer's representative to audit courtesy storage agreements maintained by contractor personnel, and (2) the October 2023 and March 2024 audits where the contracting officer's representative validated that the contractor is maintaining courtesy storage agreements.

- b. (U) Ensure contractor personnel track the net explosive weight totals for all munitions stored in the munitions storage area.**

### ***(U) U.S. Air Forces Central Logistics, Engineering, and Contracting Directorate (A-4) Comments***

(U) The USAFCENT Director of Logistics, Engineering, and Contracting, responding for the USAFCENT Detachment 6 Commander, agreed with the recommendation, stating that the contracting officer's representative will audit munitions storage structures maintained by contractor personnel. The Director stated that during the audits, the contracting officer's representative will validate that the contractor is using TICMS to manage NEW storage. The Director stated that the contracting officer's representative conducted an audit in October 2023 and validated the contractor's compliance with tracking NEW totals for all munitions stored in the munitions storage area. Furthermore, the Director stated that the next audit would be completed by March 31, 2024.



### ***(U) Our Response***

(U) Comments from the Director addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation when USAFCENT Detachment 6 officials provide us with: (1) the quality assurance surveillance plan that requires the contracting officer's representative to audit munitions storage structures maintained by contractor personnel and validate that the contractor is using TICMS to manage NEW storage, and (2) the October 2023 and March 2024 audits where the contracting officer's representative validated the contractor's compliance with tracking NEW totals for all munitions stored in the munitions storage area.

- c. **(U) Ensure that the contracting officer's representative audits include the contractor's compliance with tracking net explosive weight totals for all munitions, including tenant organization munitions, stored in the munitions storage area.**

### ***(U) U.S. Air Forces Central Logistics, Engineering, and Contracting Directorate (A-4) Comments***

(U) The USAFCENT Director of Logistics, Engineering, and Contracting, responding for the USAFCENT Detachment 6 Commander, agreed with the recommendation, stating that the contracting officer's representative's monthly desktop audits now include validation of the NEW totals that the contractor maintains in TICMS. The Director stated that the contracting officer's representative monthly desktop audits validate the contractor's compliance with contract requirements through the TICMS NEW violation report and the tenant organization NEW tracker.

### ***(U) Our Response***

(U) Comments from the Director addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation when USAFCENT Detachment 6 officials provide us with: (1) the quality assurance surveillance plan that requires the contracting officer's representative's monthly desktop audits to include validation of the NEW totals that the contractor maintains in TICMS, and (2) evidence that the contracting officer's representative validated the contractor's compliance with tracking NEW totals for all munitions, including munitions stored by tenant organizations, for six consecutive monthly desktop audits.

- d. ~~(CUI)~~ **Establish a minimum frequency for the contracting officer's representative to review contractor compliance with [REDACTED].**

***(U) U.S. Air Forces Central Logistics, Engineering, and Contracting Directorate (A-4) Comments***

~~(CUI)~~ The USAFCENT Director of Logistics, Engineering, and Contracting, responding for the USAFCENT Detachment 6 Commander, agreed with the recommendation, stating that audits by the contracting officer's representative now include validation of [REDACTED] documentation.

***(U) Our Response***

~~(CUI)~~ Comments from the Director addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation when USAFCENT Detachment 6 officials provide us with: (1) the quality assurance surveillance plan that requires the contracting officer's representative audits to include validation of [REDACTED] documentation, and (2) evidence that the contracting officer's representative validated the contractor's compliance with [REDACTED] for six consecutive monthly audits.

## (U) Appendix A

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### (U) Scope and Methodology

(U) We conducted this performance audit from February 2023 through November 2023 in accordance with generally accepted government auditing standards. 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

### (U) Safety and Security Criteria for Stored Munitions

(U) We reviewed criteria to determine whether DoD officials stored munitions at Al Udeid Air Base in accordance with safety and security policies. Specifically, we reviewed the following DoD and Air Force guidance.

- (U) DoD Instruction 4140.01, “DoD Supply Chain Materiel Management Policy,” March 6, 2019
- (U) DoD Instruction 6055.16, “Explosives Safety Management Program,” July 29, 2008 (Incorporating Change 3, August 31, 2018)
- (U) DDESB DESR 6055.09, “Defense Explosives Safety Regulation,” Edition 1, January 13, 2019
- (U) DoD Manual 5100.76, “Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E),” April 17, 2012 (Incorporating Change 2, October 5, 2020)
- (U) Air Force Instruction 91-202, “The U.S. Air Force Mishap Prevention Program,” March 12, 2020 (Updated October 30, 2020)
- (U) Air Force Manual 91-201, “Explosives Safety Standards,” March 10, 2023
- (U) Air Force Manual 21-200, “Munitions and Missile Maintenance Management,” August 9, 2018 (Incorporating Change 2, March 9, 2022)

### (U) Munitions Storage Structures Reviewed

(U) As of March 2023, DoD officials at Al Udeid Air Base stored approximately [REDACTED] munitions, valued at more than \$1.8 billion, in [REDACTED] munitions storage structures. We nonstatistically selected a sample of [REDACTED] munitions storage structures to review. Specifically, we nonstatistically selected [REDACTED] structures for review based on the following factors.

- (U) SRC of munitions stored in the structures
- (U) NEW of munitions stored in the structures
- (U) Location of storage structures on the installation

- ~~(CUI)~~ Type of storage structure [REDACTED]
- (U) Structures with courtesy storage agreements

### **(U) Analysis for Stored Munitions**

(U) For each munitions storage structure reviewed at Al Udeid Air Base, we obtained and analyzed documentation, including site plans, munitions inventories, standard operating procedures, safety deviation risk assessments, key control access logs, and safety inspection results, LPS inspection and testing records, and IDS testing records.

(U) We conducted meetings with DDESB, Air Force, and tenant personnel to discuss roles and responsibilities related to munitions storage, site planning, risk management, and oversight. We also reviewed documentation from these organizations related to the safe and secure storage of munitions at Al Udeid Air Base.

(U) During the site visit, we interviewed staff responsible for munitions storage, security, and safety. Key personnel interviewed included the munitions accountable systems officer, contracting officer's representative, weapons safety managers, security officials, and tenant personnel. We inspected storage conditions at the munitions storage structures to determine whether munitions were stored in accordance with applicable safety and security policies. At the tested munitions storage structures, we visually observed the following.

- (U) Intrusion detection systems
- (U) Lightning protection systems
- (U) Interior and exterior lighting
- (U) Doors
- (U) Ventilation
- (U) Concrete integrity and evidence of flooding
- (U) Vegetation, trash, and debris on and around the structure

~~(CUI)~~ We also tested inventory accountability at each of the [REDACTED] selected structures. Specifically, we performed book-to-floor (existence) inventories by reconciling 25 line items from the inventory provided by the command to the munitions that were present in the structure. We also performed floor-to-book (completeness) inventories by reconciling five additional line items from each structure back to the inventory provided by the command. If there were less than 25 line items in a structure, we conducted a complete book-to-floor inventory of the structure.

## (U) Internal Control Assessment and Compliance

~~(CUI)~~ We assessed internal controls and compliance with laws and regulations necessary to satisfy the audit objective. In particular, we assessed control environment, control activities, risk assessment, and monitoring. We identified internal control weaknesses related to the management of munitions storage at Al Udeid Air Base. Specifically, USAFCENT Detachment 6 officials and contractor personnel did not manage munitions storage in accordance with approved NEW limits for [REDACTED] munitions storage structures reviewed. The 379th AEW weapons safety managers were unaware of the NEW totals in [REDACTED] munitions storage structures reviewed, and USAFCENT Detachment 6 officials and contractor personnel did not track the NEW of munitions stored by two tenant organizations in [REDACTED] munitions storage structures reviewed. Additionally, the 379th Expeditionary Civil Engineering Squadron did not [REDACTED] [REDACTED] munitions storage structures reviewed. However, because our review was limited to these internal control components and underlying principles, it may not have disclosed all internal control deficiencies that may have existed at the time of this audit.

## (U) Use of Computer-Processed Data

(U) We used computer-processed data from Army, Navy, and Air Force munitions systems to identify the munitions on hand at the munitions storage structures we selected for testing. The munitions systems included the Army's Standard Army Ammunition System, the Navy's Ordnance Information System, and the Air Force's TICMS. To assess the reliability of the data, we performed existence and completeness testing of the munitions inventories. Our testing did not identify discrepancies in the munitions inventories as a result of system errors.

## (U) Prior Coverage

(U) During the last 6 years, the Government Accountability Office (GAO), DoD OIG, and Army Audit Agency issued three reports discussing the DoD's storage of munitions. We did not identify any Air Force Audit Agency reports related to munitions storage issued in the last 6 years.

(U) Unrestricted GAO reports can be accessed at <http://www.gao.gov>. Unrestricted DoD OIG reports can be accessed at <http://www.dodig.mil/reports.html/>. Unrestricted Army Audit Agency reports can be accessed from .mil and gao.gov domains at <https://www.army.mil/aaa>.

**(U) GAO**

(U) Report No. GAO-19-118, “Actions Needed to Enhance the Security of High-Risk Ammunition at Storage Locations,” November 2018

(U) The GAO found that Military Service guidance for safeguarding SRC I munitions was not consistent with all DoD minimum requirements. The report also noted that the Military Services conducted inspections of the physical security at locations with SRC I ammunition and identified security deficiencies. The GAO was unable to determine whether the Military Services resolved all security deficiencies because the Services did not consistently document resolution.

**(U) DoD OIG**

(U) Report No. DODIG-2021-090, “Audit of Munitions Storage in the U.S. European Command,” June 10, 2021

(U) This report is classified. To submit a Freedom of Information Act request, please visit <https://www.dodig.mil/FOIA/>.

**(U) Army**

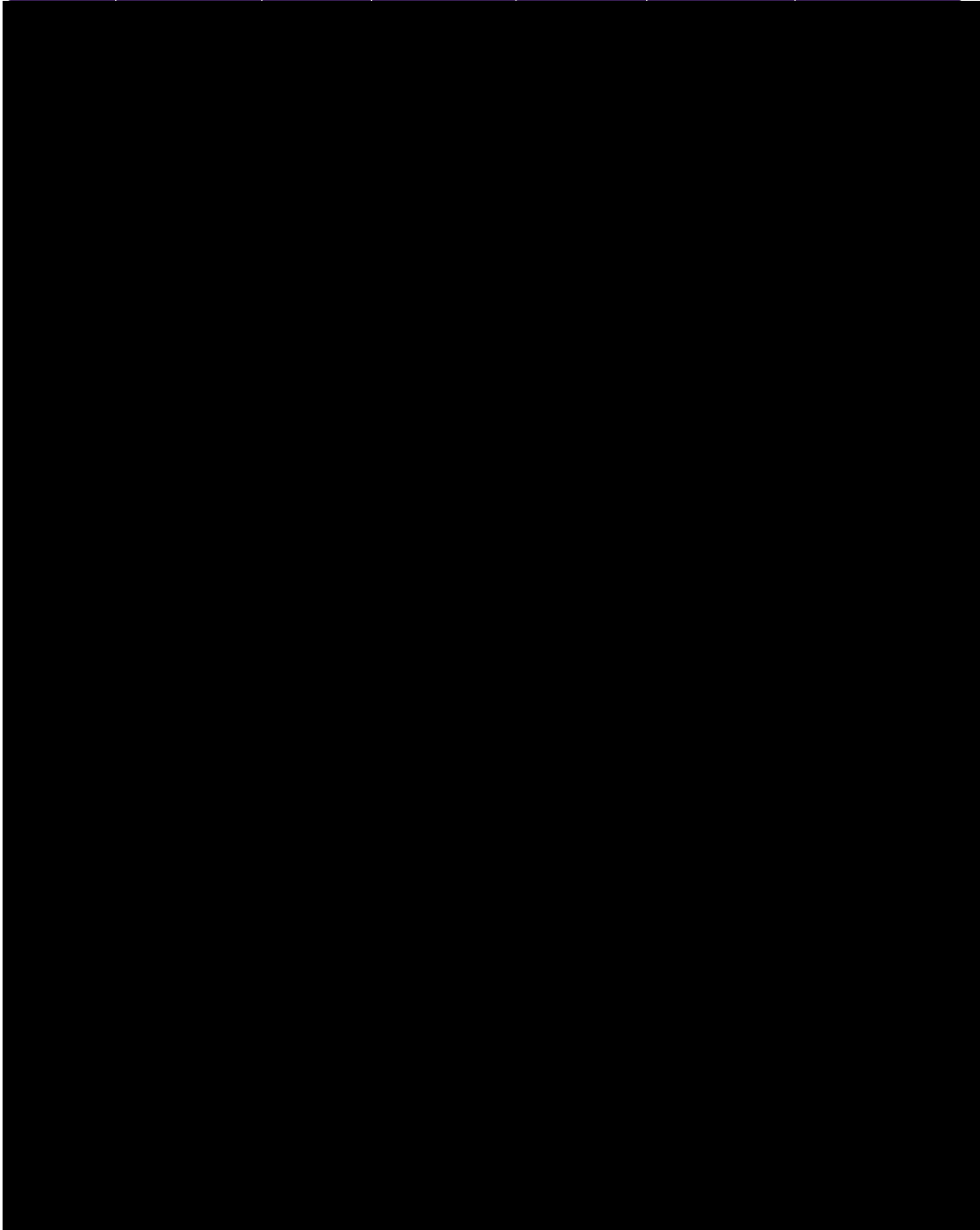
(U) Report No. A-2019-0003-FMP, “Ammunition Facilities Management, Lualualei Annex, Joint Base Pearl Harbor–Hickam, Hawaii,” October 19, 2018

(U) The Army found that munitions storage facilities at the Navy’s Lualualei Annex generally were not sufficient because none had lightning protection systems, most earth-covered magazines did not have 2-foot soil coverage, and most structures required concrete or electrical repairs. Furthermore, the 402nd Army Field Support Brigade did not have plans to assume munitions operations at Lualualei when the Navy ceases providing this support. The U.S. Army Pacific did not take sufficient steps to prioritize relocating munitions to the Naval Ammunition Depot West Loch.

## (U) Appendix B

### (U) Munitions Storage Structures Reviewed at Al Udeid Air Base

(CUI) Sample Number	Structure	Structure Type	Structure Location	SRC of Munitions	NEW of Munitions	Organization
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~~(CUI)~~ Munitions Storage Structures Reviewed at Al Udeid Air Base (cont'd)

(CUI) Sample Number	Structure	Structure Type	Structure Location	SRC of Munitions	NEW of Munitions	Organization
[Redacted Table Content]						

(U) LEGEND

(U) 2-43 ADA BN 2nd Battalion, 43rd Air Defense Artillery Regiment

(U) 379th ECES 379th Expeditionary Civil Engineering Squadron

(U) 379th ESFS 379th Expeditionary Security Forces Squadron

(U) 592nd OC 592nd Ordnance Company

(U) 8 EAMS 8th Expeditionary Air Mobility Squadron

(CUI) [Redacted]

(CUI) [Redacted]

(CUI) [Redacted]

(CUI) [Redacted]

(U) N/A Not Applicable

(CUI) [Redacted]

(U) Source: The DoD OIG.



## (U) Management Comments

### (U) U.S. Air Forces Central Logistics, Engineering, and Contracting Directorate (A-4)



**DEPARTMENT OF THE AIR FORCE  
NINTH AIR FORCE (AIR FORCES CENTRAL)  
SHAW AIR FORCE BASE SOUTH CAROLINA**

26 Dec 23

MEMORANDUM FOR OFFICE OF DOD INSPECTOR GENERAL

FROM: 379 AEW/CC & 9 AF (AFCENT)/A4

SUBJECT: AFCENT Response to DoD Office of Inspector General's Audit of Munitions at Al Udeid Air Base, Qatar

References: (a) Audit of Munitions at Al Udeid Air Base, Qatar, (Project No. D2023-D000RJ-0083.001)  
(b) DESR 6055.09\_AFMAN 91-201\_DAFGM 2023-01, 10 March 2023

1. 9 AF (AFCENT) provides the following responses regarding the information and recommendations contained in reference (a).
2. RECOMMENDATION 1a: It is recommended that the Commander of the 379th Air Expeditionary Wing develop and implement procedures requiring incoming 379th Air Expeditionary Wing weapon safety managers to review all in-progress and completed explosives safety site plans (ESPs) to ensure explosives safety site plans are up to date.
  - a. RESPONSE: 9 AF (AFCENT) **AGREES** with this recommendation. The 379 AEW Weapons Safety office maintains in-progress and completed ESPs on the Weapon Safety Share drive. When ESPs are returned from DoD Explosive Safety Board (DDESB) they are reconciled with the Base Facilities Board, IAW reference (b). Copies of ESPs are placed on the Weapons Safety Share Point, given to Civil Engineering, and are then populated on base maps. 379 AEW Weapons Safety notifies users by phone and email when ESP updates occur.
  - b. Due to the findings, the 379 AEW Weapons Safety office is re-evaluating base wide ESPs for accuracy and annually in accordance with DAFI 91-202. A review of all ESPs will be accomplished by Weapon Safety Managers upon assignment to the AOR. Local munitions units will follow AFMAN 21-200 paragraph 5.3.16.2.1 requirements to review annually and as changes occur.
  - c. ACTUAL COMPLETION DATE: 15 October 2023
3. RECOMMENDATION 1b: It is recommended that the Commander of the 379th Air Expeditionary Wing develop and implement procedures requiring incoming 379th Air Expeditionary Wing weapon safety managers to review Net Explosive Weight (NEW) limits in the Theater Integrated Combat Munitions System (TICMS) for all munitions storage structures to ensure they align with NEW limits in DDESB-approved ESPs.
  - a. RESPONSE: 9 AF (AFCENT) **AGREES** with this recommendation broadly, but **DISAGREES** with the recommended mechanics. Review of NEW limits in TICMS and DDESB-alignment are Munitions Control functions; both 379 EMXS Munitions Control and the AFCENT War Reserve Materiel (WRM) Munitions contractors have access to accountability systems and are responsible for ensuring accuracy of NEW limits. Therefore, the Weapon Safety office will not possess access to TICMS or Munitions Command & Control systems. However, 379 AEW Weapons Safety will provide NEW limits for all structures with excerpts from final ESPs as changes occur.
  - b. 9 AF (AFCENT) RECOMMENDATION: 379 EMXS and AFCENT WRM Munitions contractors will perform a joint review of NEW limits in TICMS and DDESB-alignment.

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## (U) U.S. Air Forces Central Logistics, Engineering, and Contracting Directorate (A-4), (cont'd)

This review will be documented via MFR, and subsequently performed annually or as changes occur.

- c. ESTIMATED COMPLETION DATE: 1 January 2024

4. RECOMMENDATION 1c: It is recommended that the Commander of the 379th Air Expeditionary Wing develop and implement procedures requiring incoming 379th Air Expeditionary Wing weapon safety managers to verify at least quarterly the NEW totals in all munitions storage structures at Al Udeid Air Base to ensure all organizations storing munitions comply with NEW limits.

- a. RESPONSE: 9 AF (AFCENT) **AGREES** with this recommendation broadly, but **DISAGREES** with the recommendation mechanics. During day-to-day munitions operations, NEW verification occurs IAW paragraph VI.E6.16 of reference (b) stating "supervisors are responsible for enforcing explosive limits." 379 AEW weapons safety will ensure NEW limits are accurate and do not exceed posted limits while conducting spot and annual inspections in the MSA.
- b. Additionally, IAW local movement control guide procedures, WRM Munitions contractors will verify the previous week's movements for storage violations, including NEW limit verifications. Furthermore, IAW DAFMAN 21-201 paragraph 5.2.4, NEW verification will also be regularly monitored by Munitions Stockpile Management to ensure that facilities do not exceed ESP limits.
- c. ACTUAL COMPLETION DATE: The last annual inspection was completed in September 2023 and the last spot inspection was October 2023. No discrepancies were noted during either inspection. The next annual inspection is scheduled for August 2024.

5. RECOMMENDATION 2a. It is recommended that the Commander of U.S. Air Forces Central Detachment 6 ensure contractor personnel update courtesy storage agreements to require tenant organizations to initially report all munitions data, including NEW totals, and to report changes in munitions storage to the contractor.

- a. RESPONSE: 9 AF (AFCENT) **AGREES** with this recommendation and has directed the Munitions Contracting Officer Representative (COR) to audit munitions courtesy storage agreements maintained by contract personnel. During future audits, the Munitions COR will validate that requirement for reporting munitions data changes (including NEW totals) are included in the initial memorandum from the contractor, tenant organizations are reporting munitions data changes as required, and the contractor is updating courtesy stored munitions data as required.
- b. ACTUAL COMPLETION DATE: The munitions COR validated the information in recommendation 2a during the 31 October 2023 audit with no discrepancies noted. The next audit will occur 1Q24.

6. RECOMMENDATION 2b: It is recommended that the Commander of U.S. Air Forces Central Detachment 6 ensure contractor personnel track the net explosive weight totals for all munitions stored in the munitions storage area.

- a. RESPONSE: 9 AF (AFCENT) **AGREES** with this recommendation and has directed the Munitions COR to audit structures maintained by contract personnel. On future audits, the Munitions COR will validate compliance of AFMAN21-200 paragraph 5.3.16.2 TICMS (or other AF approved system) shall be used to manage NEW and NEW Quantity Distance (NEWQD).
- b. ACTUAL COMPLETION DATE: The munitions COR validated the information in recommendation 2b during the 31 October 2023 audit with no discrepancies noted. The next audit will occur 1Q24.

7. RECOMMENDATION 2c: It is recommended that the Commander of U.S. Air Forces Central Detachment 6 ensure that the Munitions COR audits include the contractor's compliance with tracking NEW totals for all munitions, including tenant organization munitions, stored in the munitions storage.

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## (U) U.S. Air Forces Central Logistics, Engineering, and Contracting Directorate (A-4), (cont'd)

- a. RESPONSE: 9 AF (AFCENT) AGREES with this recommendation and has confirmed the Munitions COR's monthly desktop audits now include validation of the NEW totals published by the contractor. This determines the contractor's compliance with the mandatory contract requirements via the TICMS NEW violation report and the tenant organization NEW tracker in Munitions Command & Control (MC2).
- b. ACTUAL COMPLETION DATE: The munitions COR validated the information in recommendation 2c during the October and November 2023 desktop audits with no discrepancies noted. The next audit will occur during the December 2023 monthly desktop audit, to be completed NLT 5 January 2024.

8. RECOMMENDATION 2d: It is recommended that the Commander of U.S. Air Forces Central Detachment 6 establish a minimum frequency for the contracting officer's representative to review contractor compliance with [REDACTED]

- a. RESPONSE: 9 AF (AFCENT) AGREES with this recommendation and has confirmed the Munitions COR's audits now include validation of [REDACTED] documentation. This enforces contractor compliance with the mandatory contract requirements listed in the Performance Work Statement (PWS).
- b. ACTUAL COMPLETION DATE: The contractor conducted their [REDACTED] on 20 December 2023. Next scheduled inspection will be conducted prior to 31 January 2024.

9. For any questions concerning this response, please contact [REDACTED], 379 AEW/A4 at DSN: [REDACTED], via email at [REDACTED] or [REDACTED], 9 AF (AFCENT)/A44 at DSN: [REDACTED], via email [REDACTED].

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WELLING.MATTH  
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9 AF (AFCENT) Director of Logistics,  
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## (U) Acronyms and Abbreviations

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- (U) **AEW** Air Expeditionary Wing
- (U) **AFSEC** Air Force Safety Center
- (U) **DDESB** DoD Explosives Safety Board
- (U) **DESR** Defense Explosives Safety Regulation
- (U) **IDS** Intrusion Detection System
- (U) **LPS** Lightning Protection System
- (U) **NEW** Net Explosive Weight
- (U) **SRC** Security Risk Category
- (U) **TICMS** Theater Integrated Combat Munitions System
- (U) **USAFCENT** U.S. Air Forces Central
- (U) **USCENTCOM** U.S. Central Command

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