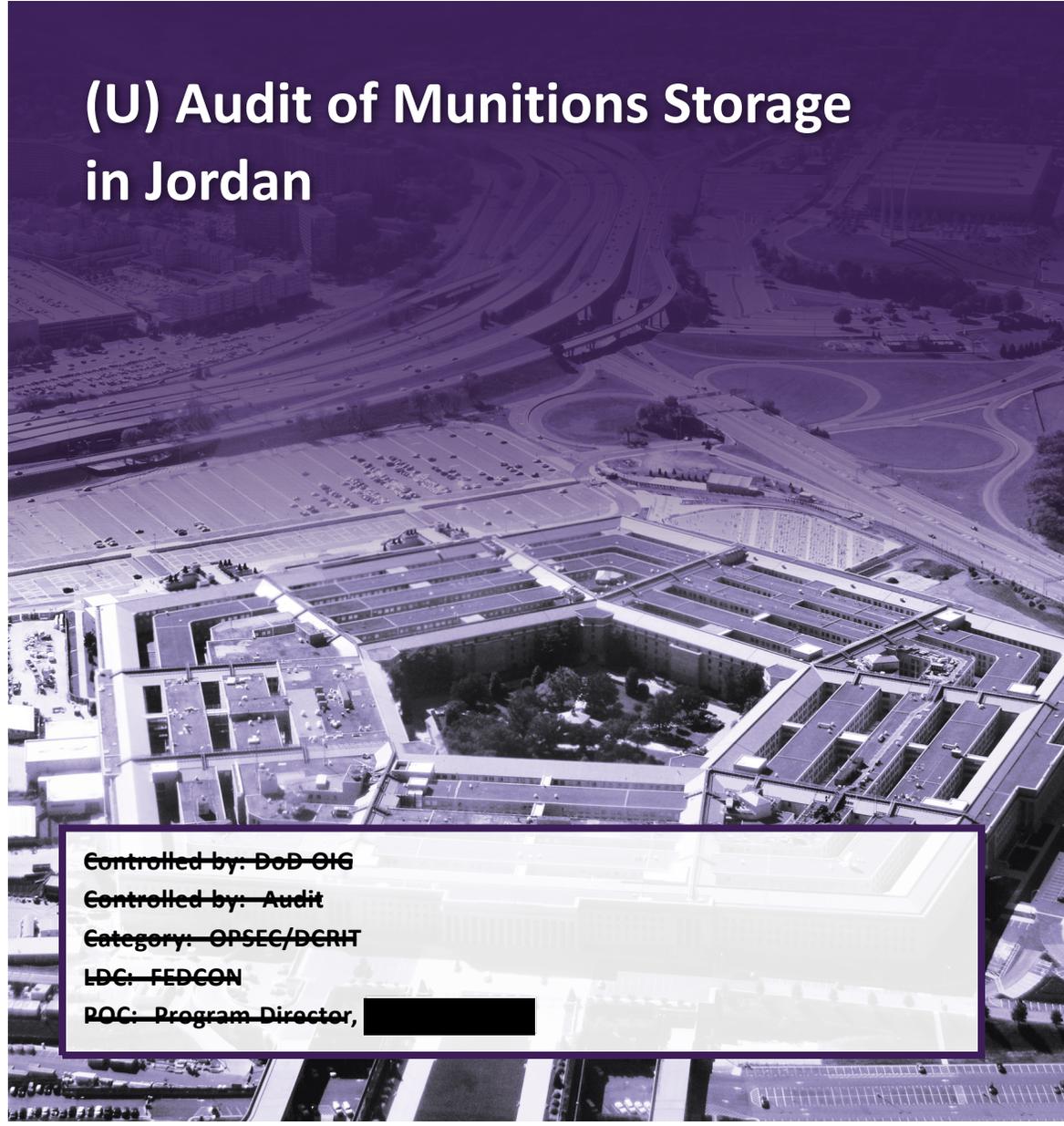


CUI

# INSPECTOR GENERAL

*U.S. Department of Defense*

SEPTEMBER 4, 2024



## (U) Audit of Munitions Storage in Jordan

~~Controlled by: DoD OIG~~

~~Controlled by: Audit~~

~~Category: OPSEC/DCRIT~~

~~LDC: FEDCON~~

~~POC: Program Director, [REDACTED]~~

INDEPENDENCE ★ INTEGRITY ★ EXCELLENCE ★ TRANSPARENCY

CUI





# (U) Results in Brief

## (U) Audit of Munitions Storage in Jordan

September 4, 2024

### (U) Objective

~~(CUI)~~ The objective of this audit was to determine whether the DoD stored munitions at [REDACTED] Jordan, in accordance with applicable safety and security policies.

(U) This is the fourth and final report in a series reviewing munitions storage within the U.S. Central Command area of responsibility.

### (U) Background

~~(CUI)~~ Munitions consist of ammunition and components used by the Armed Forces of the United States for national defense and security. At [REDACTED], the U.S. Air Forces Central's 332nd Air Expeditionary Wing (AEW) is responsible for managing the safety and security of stored munitions through the 332nd AEW Weapons Safety Division and the 332nd Expeditionary Security Forces Squadron, respectively.

### (U) Findings

~~(CUI)~~ Air Force officials at [REDACTED] generally stored munitions in accordance with applicable security and accountability policies. However, Air Force officials could improve the safety of stored munitions.

(U) Specifically, Air Force officials did not manage munitions storage in accordance with approved net explosive weight (NEW) limits for some munitions storage structures reviewed. This occurred because of an

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

(U) administrative error when updating NEW limits in the Theater Integration Combat Munitions System and because 332nd AEW weapons safety managers did not ensure Air Force officials were aware of NEW limits.

(U) In addition, Air Force officials did not maintain continuous awareness of the NEW totals for the munitions stored in all munitions storage structures reviewed. This occurred because 332nd AEW weapons safety managers believed annual reviews of a sample of NEW totals were sufficient.

(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 to fully use munitions storage structures. In addition, without continuous awareness of the NEW totals of stored munitions, Air Force officials cannot effectively manage explosives safety programs to ensure compliance with munitions safety standards.

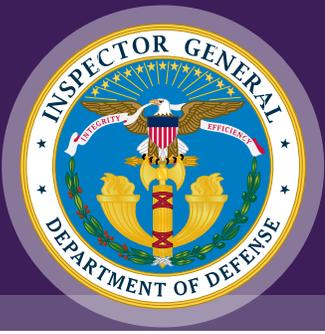
### (U) Recommendations

(U) We recommend that the Commander of the 332nd AEW require incoming 332nd AEW weapons safety managers to verify that the 332nd AEW Weapons Safety Division SharePoint page contains current NEW for all munitions storage structures and verify at least quarterly the NEW totals in all munitions storage structures to ensure that all organizations storing munitions comply with NEW limits.

(U) We also recommended that the Executive Director of the DoD Explosives Safety Board issue guidance for weapons safety managers to verify, at least quarterly, the NEW totals in munitions storage structures located on installations within the U.S. Central Command area of responsibility.

### (U) Management Comments and Our Response

(U) The Commander of U.S. Air Forces Central, responding for the Commander of the 332nd AEW, agreed with the two recommendations and described actions planned to



# (U) Results in Brief

## *(U) Audit of Munitions Storage in Jordan*

### ***(U) Comments (cont'd)***

(U) address them. Therefore, the recommendations are resolved. We will close the recommendations once we verify that the 332nd AEW has completed the agreed-upon actions.

(U) While the Executive Director of the DoD Explosives Safety Board neither agreed nor disagreed with the recommendation, the Executive Director stated that the DoD Explosives Safety Board will coordinate a policy memorandum with the Service explosives safety centers requiring explosives safety officials to verify, at least quarterly, that approved NEW limits are not exceeded. Therefore, the recommendation is resolved. We will close the recommendation once we verify that the DoD Explosives Safety Board has completed the agreed-upon action.

(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
Executive Director, DoD Explosives Safety Board	None	2	None
Commander, 332nd Air Expeditionary Wing	None	1.a, 1.b	None

**(U)**

(U) Please provide Management Comments by December 3, 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.





CU

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

September 4, 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 in Jordan (Report No. DODIG-2024-126)

(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) The Commander of U.S. Air Forces Central and the Executive Director of the DoD Explosives Safety Board agreed to address all the recommendations presented in the report; therefore, we consider the recommendations resolved and open. We will close the recommendations when management provides us documentation showing that all agreed-upon actions to implement the recommendations are completed. Therefore, please provide us within 90 days your response concerning specific actions in process or completed on the recommendations. Send your response to either [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

CU

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## (U) Introduction

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### (U) Objective

~~(CUI)~~ The objective of this audit was to determine whether the DoD stored munitions at [REDACTED] [REDACTED] Jordan, in accordance with applicable safety and security policies.<sup>1</sup>

(U) This is the fourth and final report in a series reviewing munitions storage within the U.S. Central Command (USCENTCOM) area of responsibility (AOR). The first three reports reviewed munitions storage at Al Udeid Air Base, Qatar; Camp Arifjan, Kuwait; and Bahrain. See Appendix A for the scope, methodology, and prior coverage related to the objective.

### (U) Background

~~(CUI)~~ U.S. Service members conducting operations in the USCENTCOM AOR require munitions to complete missions. Military munitions are ammunition and components used by the Armed Forces of the United States for national defense and security.<sup>2</sup> DoD officials store munitions in locations across the USCENTCOM AOR, including [REDACTED]

### (U) Roles and Responsibilities

~~(CUI)~~ The DoD Explosives Safety Board (DDESB) is the lead agency for explosives safety management for the DoD. In addition, U.S. Air Forces Central's (USAFCENT) 332nd Air Expeditionary Wing (AEW) is responsible for the safety and security of stored munitions at [REDACTED]

### (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 Defense Explosives Safety Regulation (DESR) 6055.09, which establishes DoD explosives safety standards.<sup>3</sup>

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<sup>1</sup> (U) This report contains information that has been redacted because it was identified by the DoD as Controlled Unclassified Information (CUI) that is not releasable to the public. CUI is Government-created or owned unclassified information that allows for, or requires, safeguarding and dissemination controls in accordance with laws, regulations, or Government-wide policies.

<sup>2</sup> (U) Section 101(e)(4), title 10, United States Code. Military 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>3</sup> (U) DDESB DESR 6055.09, "Defense Explosives Safety Regulation 6055.09," Edition 1, January 13, 2019. In February 2024, the DDESB updated DESR 6055.09. However, we conducted our review in August and September 2023 and the requirements in the February 2024 update did not impact the findings identified in this report.

### ***(U) 332nd Air Expeditionary Wing***

~~(CUI)~~ The 332nd AEW is responsible for managing the safety and security of stored munitions through the 332nd AEW Weapons Safety Division and the 332nd Expeditionary Security Forces Squadron, respectively. For example, 332nd AEW Weapons Safety Division weapons safety managers are responsible for the management of explosives safety programs to ensure Air Force officials storing munitions comply with munitions safety standards. The 332nd Expeditionary Security Forces Squadron is responsible for the security of the installation, including munitions storage. In addition, the 332nd Expeditionary Maintenance Squadron (EMXS) primarily stores, maintains, and accounts for munitions and munitions storage structures at [REDACTED]

### ***(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>4</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 activities involved in military 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 officials storing munitions comply with munitions safety standards.<sup>5</sup>

~~(CUI)~~ DESR 6055.09 establishes the DoD's explosives safety standards 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>6</sup> For example, DESR 6055.09 and Air Force Manual 91-201 require all munitions storage structures to have an approved explosives safety site plan (site plan) to minimize damage or injuries in the

<sup>4</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>5</sup> (U) Air Force Instruction 91-202, "The U.S. Air Force Mishap Prevention Program," March 12, 2020 (Incorporating Change 1, October 30, 2020).

<sup>6</sup> (U) Air Force Manual 91-201, "Explosives Safety Standards," March 10, 2023.

(~~CUH~~) event of an accidental explosion. Specifically, the 332nd AEW Weapons Safety Division is responsible for developing and providing site plans to the USAFCENT Weapons Safety Division. The USAFCENT Weapons Safety Division reviews and submits the site plans to the Air Force Safety Center (AFSEC), which reviews and submits the site plans to the DDESB for final approval. Figure 1 shows the process for submitting, reviewing, and approving site plans at [REDACTED]

(~~CUH~~) Figure 1. Site Plan Submission, Review, and Approval Process at [REDACTED]



(U) Source: The DoD OIG.

(U) Site plans establish storage limits, such as net explosive weight (NEW) limits for munitions storage structures. NEW is the maximum weight of munitions in pounds of explosive material. Each munitions storage structure has an authorized NEW limit based on design, condition, and proximity to other munitions or inhabited buildings. In addition, Air Force Manual 91-201 requires Air Force officials to manage and post NEW limits in an Air Force-approved database for tracking NEW at explosives storage or operating locations. Air Force Manual 21-200 requires Air Force officials to manage NEW totals using the Theater Integrated Combat Munitions System (TICMS).<sup>7</sup>

***(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

<sup>7</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.

(U) risk category (SRC) of 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>8</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.

(U) 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>9</sup>

(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.

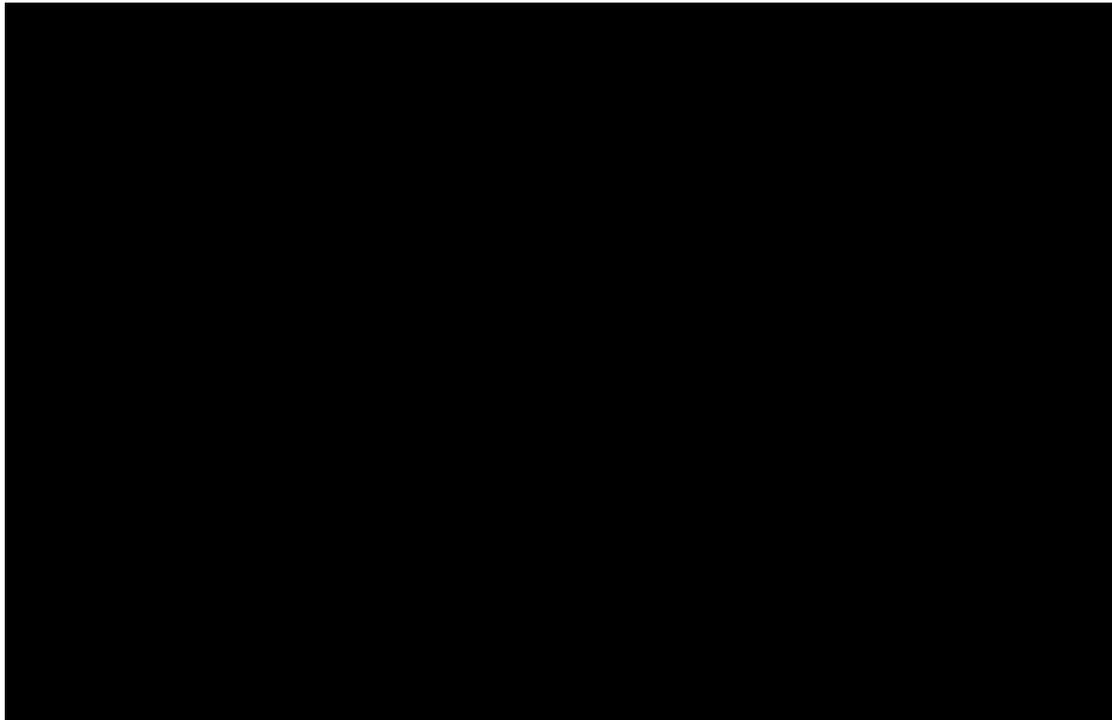
### ~~(EUI)~~ Munitions Stored at [REDACTED]

~~(EUI)~~ As of August 2023, Air Force officials stored [REDACTED] munitions in [REDACTED] munitions storage structures at [REDACTED]. We nonstatistically selected a sample of [REDACTED] munitions storage structures to review. The [REDACTED] munitions storage structures contained [REDACTED] munitions. See Appendix B for the list of [REDACTED] munitions storage structures reviewed at [REDACTED].

<sup>8</sup> (U) Not all munitions have an SRC designation. For example, some munitions are categorized as non-sensitive and do not maintain an SRC designation.

<sup>9</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.

(~~CUI~~) Air Force officials stored munitions at [REDACTED] in [REDACTED]  
[REDACTED]  
[REDACTED]. Figures 2 and 3 show examples of two different types  
of [REDACTED]



## (U) Finding

### ~~(CUI)~~ Air Force Officials at [REDACTED] Generally Stored Munitions in Accordance with Security and Accountability Policies but Could Improve the Safety of Stored Munitions

~~(CUI)~~ Air Force officials at [REDACTED] generally stored munitions in accordance with applicable security and accountability policies. Specifically, of the [REDACTED] munitions storage structures reviewed, Air Force officials [REDACTED] for the [REDACTED] munitions storage structures that required [REDACTED] and maintained accurate inventory records. However, Air Force officials could improve the safety of stored munitions for [REDACTED] munitions storage structures reviewed.

- ~~(CUI)~~ Officials from the 332nd EMXS did not manage munitions storage in accordance with approved NEW limits for [REDACTED] munitions storage structures reviewed. This occurred because of an administrative error when updating NEW limits in TICMS for [REDACTED] munitions storage structure and because 332nd AEW weapons safety managers did not ensure 332nd EMXS officials were aware of the NEW limits for [REDACTED] munitions storage structure.
- ~~(CUI)~~ Weapons safety managers from the 332nd AEW did not maintain continuous awareness of the NEW totals for the munitions stored in [REDACTED] munitions storage structures reviewed. This occurred because 332nd AEW weapons safety managers believed annual reviews of a sample of NEW totals were sufficient.

~~(CUI)~~ 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 to fully use munitions storage structures. For example, Air Force officials stored munitions in a structure that exceeded the approved NEW limits by [REDACTED]. Without continuous awareness of the NEW totals of stored munitions, Air Force officials cannot effectively manage explosives safety programs to ensure compliance with munitions safety standards.

**(~~CUI~~) Air Force Officials at [REDACTED] Generally Stored Munitions in Accordance with Security and Accountability Policies**

(~~CUI~~) Air Force officials at [REDACTED] generally stored munitions in accordance with applicable security and accountability policies. Specifically, of the [REDACTED] munitions storage structures reviewed, Air Force officials [REDACTED] for the [REDACTED] munitions storage structures that required [REDACTED] and maintained accurate inventory records for [REDACTED] munitions storage structures.

**(~~CUI~~) Air Force Officials [REDACTED] Munitions with [REDACTED]**

(~~CUI~~) Of the [REDACTED] munitions storage structures reviewed, Air Force officials [REDACTED] DoD Manual 5100.76 requires that munitions storage structures [REDACTED] [REDACTED] [REDACTED]. As of August 2023, [REDACTED] munitions storage structures reviewed [REDACTED] During physical inspections of munitions storage structures, we observed [REDACTED] munitions storage structures that required [REDACTED]. In addition, we observed 332nd AEW officials [REDACTED] munitions storage structure. The [REDACTED] were not [REDACTED] munitions storage structures during the physical inspection; however, through observation, we confirmed the storage area was [REDACTED] [REDACTED]. Officials from the 332nd AEW stated that they [REDACTED] for the [REDACTED] munitions storage structures when the storage area is [REDACTED].

(~~CUI~~) Air Force officials at [REDACTED] conducted [REDACTED] for the [REDACTED] munitions storage structures, as required by DoD Manual 5100.76. DoD Manual 5100.76 requires DoD officials [REDACTED] [REDACTED]. We reviewed [REDACTED] from October 2022 through August 2023 for the [REDACTED] munitions storage structures [REDACTED]. The [REDACTED] [REDACTED]. According to the records reviewed, the [REDACTED] munitions storage structures [REDACTED].

### **(U) Air Force Officials Maintained Accurate Inventory Records**

~~(CUI)~~ Of the [REDACTED] munitions storage structures reviewed, Air Force officials maintained accurate inventory records for [REDACTED] munitions storage structures. 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. We obtained munitions records from 332nd AEW officials and performed inventories at [REDACTED] munitions storage structures reviewed. Using a nonstatistical sample, we performed book-to-floor (existence) inventories of [REDACTED] munitions and floor-to-book (completeness) inventories of [REDACTED] munitions and verified Air Force officials properly accounted for all munitions in our sample.

### **(CUI) Air Force Officials at [REDACTED] Could Improve the Safety of Stored Munitions**

~~(CUI)~~ Air Force officials at [REDACTED] could improve the safety of stored munitions. Specifically, 332nd EMXS officials did not manage munitions storage in accordance with approved NEW limits for [REDACTED] munitions storage structures reviewed. In addition, 332nd AEW weapons safety managers did not maintain continuous awareness of the NEW totals for the munitions stored in [REDACTED] munitions storage structures reviewed.

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

~~(CUI)~~ Officials from the 332nd EMXS did not manage munitions storage in accordance with approved NEW limits 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 21-200 requires Air Force officials to manage NEW limits using TICMS. As of August 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 that did not align with the total NEW limits approved by the DDESB for the [REDACTED] munitions storage structures on the next page.

(U) Table 2. Total NEW Limits Established in TICMS That Did Not Align with the Total NEW Limits Approved by the DDESB

(OU) Munitions Storage Structure	Total NEW Limits Established in TICMS	Total NEW Limits Approved by the DDESB	Difference

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

(U) Source: The DoD OIG.

(OU) Officials from the 332nd EMXS did not manage munitions storage in accordance with approved NEW limits for munitions storage structure [REDACTED] because of an administrative error. Specifically, 332nd EMXS officials stated that they entered the wrong NEW limit in TICMS for [REDACTED]. In September 2023, 332nd EMXS officials updated TICMS to reflect the approved NEW limits for the munitions storage structure. Because 332nd EMXS officials corrected the administrative error, we are not making a recommendation at this time.

(OU) Additionally, 332nd EMXS officials did not manage munitions storage in accordance with approved NEW limits for munitions storage structure [REDACTED] (referred to as [REDACTED] in this report) because 332nd AEW weapons safety managers did not ensure 332nd EMXS officials were aware of the NEW limits for the munitions storage structure. Officials from the 332nd EMXS stated that when they arrived at [REDACTED] they conducted a review of TICMS to ensure NEW limits were current. Officials from the 332nd EMXS stated that they used the NEW limits in the site plans posted on the 332nd AEW Weapons Safety Division SharePoint page to conduct their review. Specifically, a 332nd AEW weapons safety manager stated that the 332nd AEW Weapons Safety Division maintained a SharePoint page that included the site plans for all munitions storage structures at [REDACTED]. The 332nd AEW weapons safety manager stated that 332nd AEW officials storing munitions at [REDACTED] used the SharePoint page to access explosives safety criteria for munitions storage structures, including NEW limits. However, a 332nd AEW weapons safety manager confirmed that the NEW limits for [REDACTED] were not included on the 332nd AEW Weapons Safety Division SharePoint page. Officials from the 332nd EMXS stated that they were unable to confirm the NEW limits for [REDACTED] and that they did not conduct additional research to identify the NEW limits.

(U) 332nd AEW weapons safety managers did not ensure 332nd EMXS officials were aware of the NEW limits for the munitions storage structure.

~~(U)~~ As a result, the NEW limits in TICMS for [REDACTED] remained inaccurate since August 2023. In addition, 332nd AEW officials exceeded the DDESB-approved NEW limits for munitions storage structure [REDACTED] by [REDACTED]

~~(U)~~ In February 2024, a 332nd AEW weapons safety manager stated that they directed 332nd EMXS officials to update TICMS, and 332nd EMXS officials provided us with a screenshot of TICMS confirming they updated TICMS to reflect the approved NEW limits for [REDACTED]. However, to ensure Air Force officials storing munitions at [REDACTED] use approved NEW limits, the 332nd AEW Commander should develop and implement written procedures requiring incoming 332nd AEW weapons safety managers to verify the 332nd AEW Weapons Safety Division SharePoint page has current NEW limits for all munitions storage structures at [REDACTED]

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

~~(U)~~ Weapons safety managers from the 332nd AEW did not maintain continuous awareness of the NEW totals for the munitions stored in [REDACTED] munitions storage structures reviewed. In accordance with Air Force Instruction 91-202, weapons safety managers are required to manage explosives safety programs to ensure Air Force officials storing munitions comply with munitions safety standards, which include compliance with NEW limits. According to a DDESB official, to ensure that munitions stored do not exceed DDESB-approved NEW limits, weapons safety managers should maintain awareness of NEW totals at least quarterly, or more often depending on the movement of munitions at their installation.

(U) Weapons safety managers from the 332nd AEW did not maintain continuous awareness of the NEW totals because they believed that verifying NEW limit compliance during annual safety inspections was sufficient for ensuring Air Force officials stored munitions within approved NEW limits. In addition, 332nd AEW weapons safety managers stated that they only verified NEW limit compliance for a sample of munitions storage structures during the annual safety inspections. These sampled reviews meant that 332nd AEW weapons safety managers did not ensure compliance with NEW limits for all munitions storage structures during the annual safety inspections. According to DDESB officials, annual reviews of NEW totals are not sufficient for determining Air Force officials' compliance with NEW limits because munitions stored may move throughout the year. Therefore,

*(U) According to DDESB officials, annual reviews of NEW totals are not sufficient for determining Air Force officials' compliance with NEW limits because munitions stored may move throughout the year.*

(U) the 332nd AEW Commander should develop and implement written procedures requiring 332nd AEW weapons safety managers to verify, at least quarterly, the NEW totals in all munitions storage structures to ensure all organizations storing munitions comply with NEW limits.

(U) We previously identified that weapons safety managers lacked awareness of the NEW totals in munitions storage structures at other installations within the USCENTCOM AOR. Specifically, the DoD OIG issued two reports in March 2024 which found that weapons safety managers did not maintain awareness of NEW totals in munitions storage structures at Al Udeid Air Base, Qatar, and Camp Arifjan, Kuwait.<sup>10</sup> The DoD OIG made recommendations to the Army and Air Force commanders overseeing weapons safety to develop and implement procedures requiring weapons safety managers to verify, at least quarterly, the NEW totals in all munitions storage structures at the installations. To ensure that weapons safety managers at installations throughout the USCENTCOM AOR are maintaining awareness of the NEW totals stored, the Executive Director of the DDESB should issue guidance for weapons safety managers to verify, at least quarterly, the NEW totals in munitions storage structures located on installations within the USCENTCOM AOR.

### **(U) Without Sufficient Safety of Stored Munitions, DoD Officials Increased the Risk of Serious Injury and Loss of Life**

(U) Although Air Force officials generally stored munitions in accordance with security and accountability policies, Air Force officials could improve the safety of stored munitions. When NEW limits in TICMS exceed DDESB-approved NEW limits, Air Force officials can store munitions beyond a structure’s 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 Air Force officials from fully using a munitions storage structure’s capacity. Without continuous awareness of the NEW totals of munitions stored, Air Force officials cannot effectively manage explosives safety programs to ensure compliance with munitions safety standards.

<sup>10</sup> (U) Report No. DODIG-2024-063, “Audit of Munitions Storage at Al Udeid Air Base, Qatar,” March 19, 2024.  
 (U) Report No. DODIG-2024-064, “Audit of Munitions Storage at Camp Arifjan, Kuwait,” March 19, 2024.

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

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

**(U) We recommend that the Commander of the 332nd Air Expeditionary Wing develop and implement written procedures requiring incoming 332nd Air Expeditionary Wing weapons safety managers to:**

- a. ~~(S)~~ **Verify that the 332nd Air Expeditionary Wing Weapons Safety Division SharePoint page has current net explosive weight limits for all munitions storage structures at [REDACTED]**

### **(U) 332nd Air Expeditionary Wing Comments**

(U) The USAFCENT Commander, responding for the 332nd AEW Commander, agreed with the recommendation, stating that USAFCENT will implement written procedures that require incoming weapons safety managers to ensure the 332nd AEW Weapons Safety Division SharePoint page contains current NEW limits for munitions storage structures.

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

(U) Comments from the Commander addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation when 332nd AEW officials provide us with the implemented written procedures that require the 332nd AEW Weapons Safety Division SharePoint page to contain current NEW limits for munitions storage.

- b. **(U) Verify, at least quarterly, the net explosive weight totals in all munitions storage structures to ensure that all organizations storing munitions comply with net explosive weight limits.**

### **(U) 332nd Air Expeditionary Wing Comments**

(U) The USAFCENT Commander, responding for the 332nd AEW Commander, agreed with the recommendation, stating that USAFCENT will implement written procedures that require incoming weapons safety managers to verify the NEW totals for all munitions storage structures on a quarterly basis.

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

(U) Comments from the Commander addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation when 332nd AEW officials provide us with the implemented written procedures that require weapons safety managers to verify NEW totals for all munitions storage structures quarterly.

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

**(U) We recommend that the Executive Director of the DoD Explosives Safety Board issue guidance for weapons safety managers to verify, at least quarterly, the net explosive weight totals in munitions storage structures located on installations within the U.S. Central Command area of responsibility.**

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

(U) The DDESB Executive Director neither agreed nor disagreed with the recommendation, stating that the DDESB will coordinate a policy memorandum with the Service explosives safety centers requiring explosives safety officials to verify, at least quarterly, that approved NEW limits are not exceeded. The Executive Director further stated that the DDESB will emphasize the importance of validating NEW limits for tenant activities. The DDESB plans to implement the policy memorandum by August 5, 2024.

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

(U) Comments from the Executive Director addressed the specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation when the DDESB provides us with the policy memorandum requiring Service explosives safety officials to verify, at least quarterly, that approved NEW limits are not exceeded.

## (U) Appendix A

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### (U) Scope and Methodology

(U) We conducted this performance audit from August 2023 through May 2024 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) This report was reviewed by the DoD Components associated with this oversight project to identify whether any of their reported information, including legacy FOUO information, should be safeguarded and marked in accordance with the DoD CUI Program. In preparing and marking this report, we considered any comments submitted by the DoD Components about the CUI treatment of their information. If the DoD Components failed to provide any or sufficient comments about the CUI treatment of their information, we marked the report based on our assessment of the available information.

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

~~(CUI)~~ We reviewed criteria to determine whether DoD officials stored munitions at [REDACTED] 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 (Incorporating Change 1, 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***

(~~CUH~~) As of August 2023, Air Force officials at [REDACTED] stored [REDACTED] munitions in [REDACTED] munitions storage structures. We nonstatistically selected a sample of [REDACTED] [REDACTED] munitions storage structures to review. Specifically, we nonstatistically selected [REDACTED] munitions storage 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

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

(~~CUH~~) For each munitions storage structure reviewed at [REDACTED] we obtained and analyzed documentation, including site plans, munitions inventories, standard operating procedures, safety deviation risk assessments, key control access logs, safety and security inspection results, and IDS testing records.

(~~CUH~~) We conducted meetings with the 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 [REDACTED]

(U) During the site visit, we interviewed staff responsible for munitions storage, security, and safety. Key personnel interviewed included the munitions accountable systems officer, weapons safety managers, and security officials. 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 features.

- (U) IDSs
- (U) Interior and exterior lighting
- (U) Doors
- (U) Ventilation
- (U) Vegetation, trash, and debris on and around the structure

(~~CUH~~) In addition, we tested inventory accountability at each of the [REDACTED] selected munitions storage structures, which contained [REDACTED] munitions. Specifically, we performed book-to-floor (existence) inventories by reconciling a nonstatistical sample of 25 line items from the inventory provided by the command to the munitions that were present in the structures. We also performed floor-to-book (completeness) inventories by reconciling a nonstatistical sample of

~~(CUI)~~ 25 additional line items from each structure back to the inventory provided by the command. If there were fewer than 25 line items in a structure, we conducted a complete book-to-floor inventory of the structure. As a result, we performed book-to-floor (existence) inventories of [REDACTED] munitions and floor-to-book (completeness) inventories of [REDACTED] munitions.

## (U) Internal Control Assessment and Compliance

~~(CUI)~~ We assessed internal controls and compliance with laws and regulations necessary to satisfy the audit objective. We assessed control environment, control activities, risk assessment, and monitoring. We identified internal control weaknesses related to the safety of munitions storage at [REDACTED]. Specifically, 332nd EMXS officials did not manage munitions storage in accordance with approved NEW limits for [REDACTED] munitions storage structures reviewed and 332nd AEW weapons safety managers did not maintain continuous awareness of the NEW totals for the munitions stored in [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 the Air Force munitions system, TICMS, to identify the munitions on hand at the munitions storage structures we selected for testing. 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 six 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-2024-064, “Audit of Munitions Storage at Camp Arifjan, Kuwait,” March 19, 2024

(U) The DoD OIG found that Army and contractor officials at Camp Arifjan did not consistently follow safety and security policies for storing munitions. Specifically, they stored munitions without a DDESB-approved site plan. Army officials also did not manage munitions storage in accordance with approved NEW limits and did not maintain continuous awareness of NEW totals stored in munitions storage structures. In addition, Army officials did not ensure compliance with semiannual emergency evacuation drills and annual inspections for munitions storage structures or remove vegetation around munitions storage structures.

(U) Report No. DODIG-2024-063, “Audit of Munitions Storage at Al Udeid Air Base, Qatar,” March 19, 2024

(U) The DoD OIG found that DoD officials at Al Udeid Air Base generally followed safety and security policies for munitions storage but there is room for improvement. Specifically, Air Force officials did not manage munitions storage in accordance with approved NEW limits, were unaware of the NEW of munitions stored, and did not track the NEW totals of munitions stored by two tenant organizations.

(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

## (~~CU~~) Munitions Storage Structures Reviewed at [REDACTED]

( <del>CU</del> ) Sample Number	Structure	Structure Type	Structure Location	SRC of Munitions	NEW of Munitions
[REDACTED]					

### (U) LEGEND

- (U) AFE Air Flight Equipment
- (~~CU~~) [REDACTED]
- (U) LSA Logistics Support Area
- (U) MSA Munitions Storage Area
- (U) N/A Not Applicable
- (U) RTV Red Tail Village
- (U) SF Security Forces
- (U) Source: The DoD OIG.

# (U) Management Comments

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



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

14 June 2024

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

FROM: 9 AF (AFCENT)/CC  
524 Shaw Drive, Suite 100  
Shaw AFB, SC 29152-5019

Subject: Department of the Air Force Response to DoD Office of Inspector General Draft Report, "Audit of Munitions Storage in Jordan, (Project D2023-D000RJ-0083.003)

1. This is the Department of the Air Force response to the DoDIG Draft Report, "Audit of Munitions Storage in Jordan, (Project D2023-D000RJ-0083.003). The DAF concurs with the report as written and welcomes the opportunity to improve the safety at forward deployed locations.
2. The 9 AF (AFCENT)/CC will correct issues identified in this report, and develop and implement a corrective action plan outlined in the following recommendations:

**RECOMMENDATION 1:** The DODIG recommends that the Commander of the 332 Air Expeditionary Wing (332 AEW) develops and implements written procedures requiring incoming Wing weapons safety managers to:

- a. [REDACTED]
- b. (U) Verify, at least quarterly, the net explosive weight totals in all munitions storage structures to ensure that all organizations storing munitions comply with net explosive weight limits.

**DAF RESPONSE:** The Air Force concurs with the DODIG Audit of Munitions Storage in Jordan. 9 AF (AFCENT) verifies written procedures for incoming weapons safety managers that explicitly explains the requirement for Wing Weapon Safety Division SharePoint pages to contains current net explosive weight limits for munition storage and directs quarterly net explosive weight total for all munition storage structures.

3. The 332 AEW/CoS point of contact is [REDACTED], Chief of Staff, DSN [REDACTED], or via email at [REDACTED].

DEREK C. FRANCE  
Lieutenant General, USAF  
Commander

See Attachment: Request\_Security\_Marking Audit of Munitions Storage in Jordan - Draft Report (Project No. D2023-D000RJ-0083.003)\_Response

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## (U) DoD Explosives Safety Board



**UNCLASSIFIED**  
**DEPARTMENT OF DEFENSE EXPLOSIVES SAFETY BOARD**  
 4800 MARK CENTER DRIVE, SUITE 16E12  
 ALEXANDRIA, VIRGINIA 22350-3606

06 JUN 2024

MEMORANDUM FOR INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE

SUBJECT: Management Comments to Audit of Munitions Storage in Jordan (Project No. D2023-D000RJ-0083.003)

We have reviewed the audit report and concur with the findings. Our actions in response to the audit are outlined below.

A policy memorandum will be coordinated with the Service explosives safety centers providing guidance to responsible explosives safety personnel to verify, at least quarterly, that the net explosive weight limits stipulated in approved site plans are not exceeded.

The importance of validating explosives limits for tenant activities will also be highlighted. We anticipate issuing this policy in the next 60 days.

  
 THIERRY L. CHIAPELLO  
 Executive Director

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## (U) Acronyms and Abbreviations

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(U) AEW	Air Expeditionary Wing
(U) AFSEC	Air Force Safety Center
(U) AOR	Area of Responsibility
(U) DDESB	DoD Explosives Safety Board
(U) DESR	Defense Explosives Safety Regulation
(U) EMXS	Expeditionary Maintenance Squadron
(U) IDS	Intrusion Detection System
(CUI) [REDACTED]	[REDACTED]
(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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